

CHAPTER 3.0

AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION

This section describes the affected environment (environmental setting) and potential environmental impacts for resources that could potentially be affected by implementation of the Proposed Action and the alternatives. For each resource area addressed in detail in this MND/EA, a description of relevant laws and regulations is provided. A discussion of the affected environment is provided that describes the existing conditions for that resource in the vicinity of the project work sites.

The following resource areas were not analyzed in detail based on an initial assessment:

- **Population and Housing.** The Proposed Action is an upgrade of the existing transmission system through construction of a line that provides system redundancy. The Proposed Action would not have any effect on local or regional population or housing.
- **Public Services.** The Proposed Action will not create any new demand for public services or affect local service providers.
- **Utilities and Service Systems.** The Proposed Action will not create any new demand for public services or affect local service providers or infrastructure. No interruption of electrical service to customers would occur.
- **Minerals.** There are no mineral resources in the project vicinity that would be affected by this project.

CEQA

This section uses the terminology below to describe environmental effects of the Proposed Action pursuant to CEQA. Under CEQA, the degree of impacts is evaluated against significance criteria. A conclusion as to whether impacts or effects are significant is first made as the project is proposed. If feasible, mitigation is implemented to avoid impacts or reduce the level of impact to below significance. Once mitigation is identified, a conclusion can be drawn as to whether or not impacts would be significant, with consideration of the mitigation.

- **Significance Criteria:** Significance criteria are used by the lead agency to determine at what level or “threshold” an impact would be considered significant. Significance criteria

used in this document are based on CEQA Guidelines and regulatory performance standards of local, State, and Federal agencies.

- **Significant Impact:** A significant impact includes effects that exceed established or defined thresholds.
- **Less-than-Significant Impact:** A less-than-significant impact includes effects that are perceptible but do not exceed established or defined thresholds.
- **No Impact:** A proposed action with no impact will not have any perceptible effect on the resources in question.

NEPA

This section uses the terminology below to describe environmental effects of the Proposed Action pursuant to NEPA. Under NEPA, the conclusion as to the severity of an impact, or effect, is made with consideration of any modifications made to the project that avoids an adverse impact or reduces the severity of an adverse impact.

- **Direct Effects:** Direct effects are those that are caused by the action and occur at the same time and place.
- **Indirect Effects:** Indirect effects are those that are caused by the action but occur later in time or farther removed in distance, and are still reasonably foreseeable.

3.1 LAND USE

The following discussion will address the compatibility of the Proposed Action with the adopted Federal, State, and local land use plans and policies. The analysis will establish in detail whether the Proposed Action will result in adverse effects that conflict with BLM policies and regulations and Imperial County land use goals and policies. The affected environment section describes existing land use conditions; the impact analysis section describes potential impacts on existing land uses and land use plans that may result from the Proposed Action and the project alternative transmission line alignments, and also from the No Action Alternative. A discussion of cumulative land use impacts is also provided in Chapter 4.0.

3.1.1 Relevant Laws, Regulations, and Plans

Federal Land Policy Management Act

BLM regulates land use within portions of the project area. The 1976 Federal Land Policy Management Act (FLPMA), Title V, allows BLM to authorize ROWs. The FLMPA requires BLM to prepare a comprehensive land use management plan for land it manages. The FLPMA requires a multiple use strategy to manage public lands and resources in a manner that protects the range of resource values on public lands, including recreation, commercial use, transportation, and wildlife protection. Section 601 of the FLPMA requires that BLM develop a plan to “... provide for the immediate and future protection and administration of the public lands in the California Desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality.” The California Desert Conservation Area Plan of 1980, as amended (CDCA) accomplishes this requirement of the FLMPA to adopt and implement a comprehensive land use management plan.

California Desert Conservation Area Plan

The California Desert Conservation Area Plan (CDCA) 1980 as amended prescribes policies for appropriate land uses on BLM’s California Desert lands and resource conservation methods to minimize environmental impacts to sensitive resources. “The goal of the Plan is to provide for the use of the public lands and resources of the California Desert Conservation Area, including economic, educational, scientific, and recreational uses, in a manner which enhances wherever possible—and does not diminish, on balance—the environmental, cultural, and aesthetic values of the Desert and its productivity” (BLM 1980).

Permitted Use Classifications

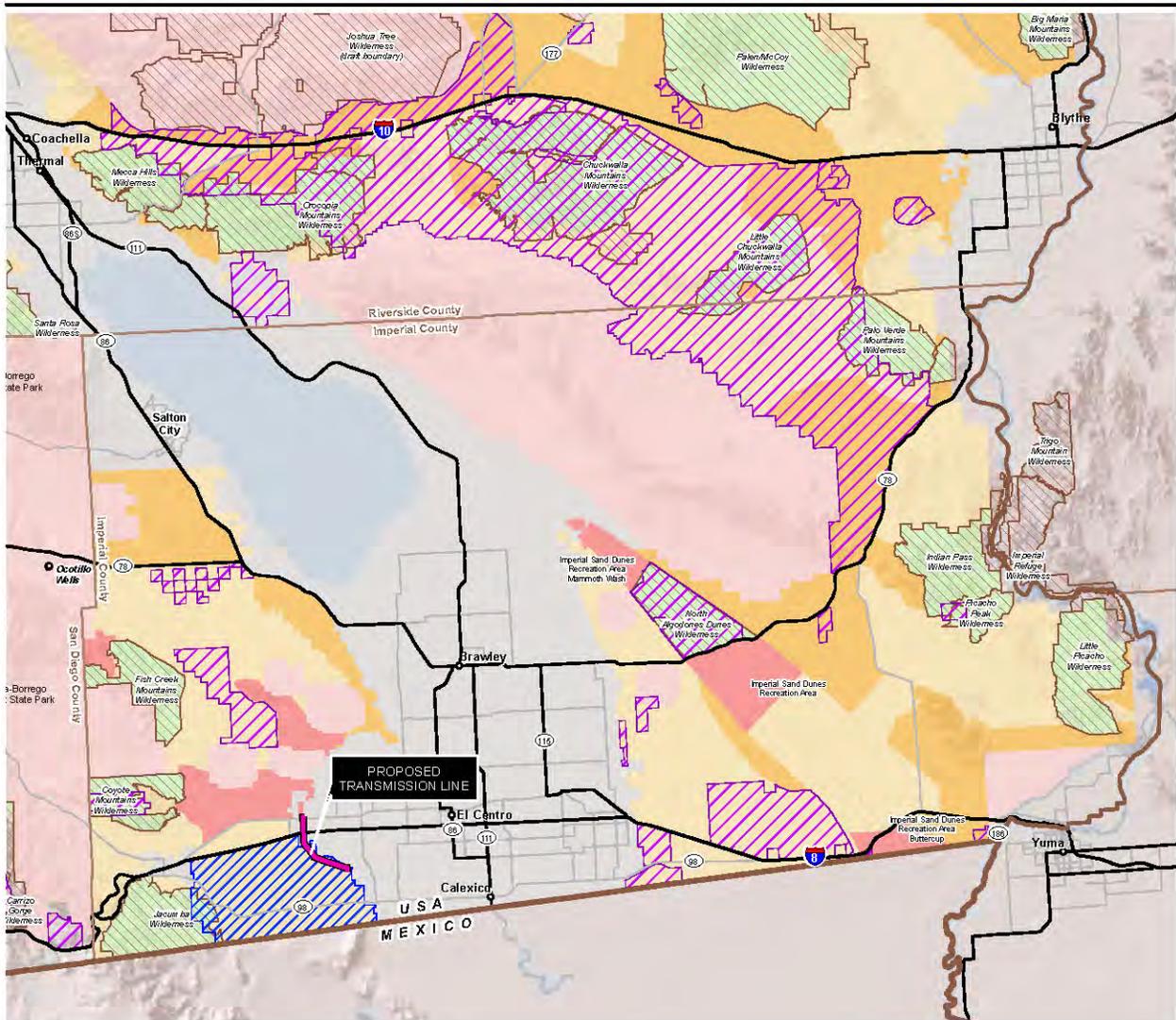
The CDCA designates a range of permitted uses consistent with the Multiple-Use Guidelines in four land use classifications:

- Class C Controlled Use includes lands “‘preliminarily recommended’ as suitable for wilderness designation” and in which utility transmission facilities are not allowed.
- Class L Limited Use “protects sensitive, natural, scenic, ecological, and cultural resource values [and] are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.” Utility transmission facilities are only allowed in designated corridors and with compliance with NEPA.
- Class M Moderate Use provides uses such as mining, livestock grazing, recreation, energy, and utility development while also conserving desert resources and mitigating damage from permitted uses. Utility transmission facilities are only allowed in designated corridors and with compliance with NEPA.
- Class I Intensive Use allows “concentrated use of lands and resources to meet human needs” while protecting natural and cultural values and providing for mitigation and rehabilitation of impacted areas. Utility transmission facilities are only allowed in designated corridors and with compliance with NEPA.

Figure 3.1-1 shows that the Proposed Action is located within Class L. The portions of the alternative alignments that are located on BLM lands are also within Class L.

Energy Element

The Energy Production and Utility Corridors Element (Energy Element) of the CDCA provides additional guidance for location of energy facilities and utility corridors and includes the goal “to establish a network of joint-use planning corridors capable of meeting projected utility service needs to the year 2000.” The Energy Element also identifies nine decision criteria to be evaluated when considering locating new energy facilities or corridors within the CDCA. These decision criteria are:



Legend

CDCA Multiple-Use Classes

- Limited
- Controlled
- Moderate
- Intensive

Others

- Military; State Park; Indian Reservation; National Park
- Unclassified
- Areas of Critical Environmental Concern (ACEC)
- Yuha Basin ACEC
- Wilderness Areas (WA)

Source: Imperial Irrigation District 2010; ESRI 2010; BLM 2010

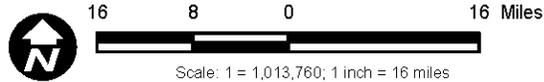


Figure 3.1-1

**California Desert Conservation Area Plan -
Multiple-Use Classes**

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

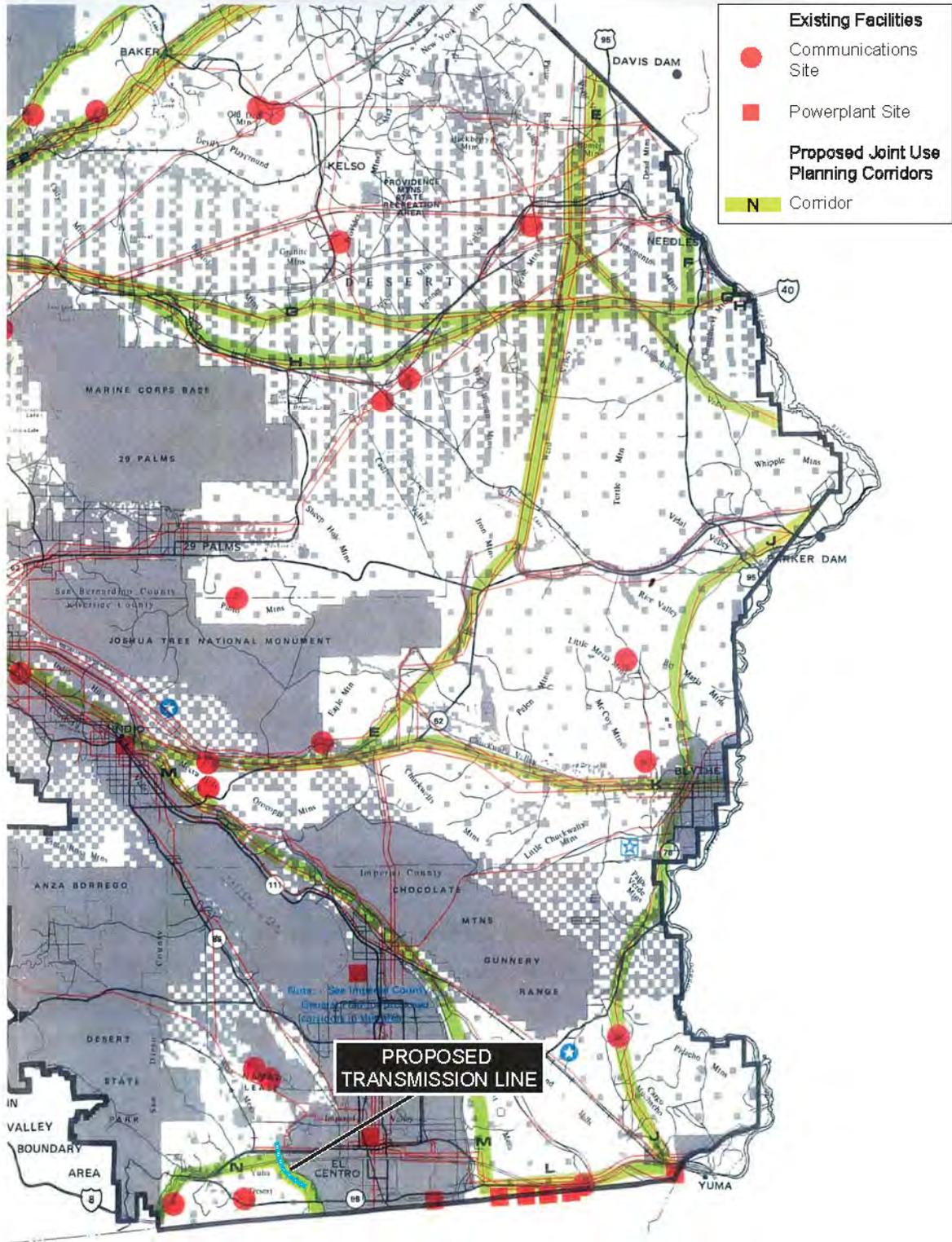
Path: P:\2009\09080060 IID 230kV6.0 GIS\6.3 Layout\REPORT_Maps_ALL\MND_EA\Fig3.1-1_MND_EA_CDCA_BLM-MUC_1.mxd, 12/17/10, Shahs2

1. Minimize the number of separate ROWs by utilizing existing ROWs as a basis for planning corridors;
2. Encourage joint use of corridors for transmission lines, canals, pipelines, and cables;
3. Provide alternative corridors to be considered during the processing of applications;
4. Avoid sensitive resources wherever possible;
5. Conform to local plans whenever possible;
6. Consider wilderness values and be consistent with final wilderness recommendations;
7. Complete the delivery-systems network;
8. Consider ongoing projects for which decisions have been made, for example, the Intermountain Power Project; and
9. Consider corridor networks that take into account power needs and alternative fuel resources.

Figure 16 of the CDCA identifies 16 Energy Production and Utility Corridors and requires that a Plan Amendment be processed for utilities that do not conform to the designated corridors. Figure 3.1-2 shows the project site to be located within Corridor N, which 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. This corridor is specified as being 2 to 5 miles in width and, at the time of preparation of the CDCA, no energy facilities existed within this corridor. 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.

Areas of Critical Environmental Concern

The CDCA designates the Yuha Basin as an ACEC as shown by the cross-hatched pattern in Figure 3.1-1. ACEC management requirements are intended to reduce potential impacts to critical resources. In the Yuha Basin, the critical resources are the flat-tailed horned lizard and prehistoric and historic values. Management requirements applicable to the Yuha Basin include improve signage to control vehicle access to designated routes, increase BLM staff presence, conduct an intense resource inventory, and develop and designate visitor use areas and facilities. The ACEC Management Plan allows for the “traversing of the ACEC by proposed transmission



Source: Bureau of Land Management – California Desert Conservation Area Plan



Figure 3.1-2
Energy Production and Utility Corridors

lines and associated facilities if environmental analysis demonstrates that it is environmentally sound to do so.” A map of permitted vehicle travel routes, camping areas, and information on visitor attractions is available on the BLM website (BLM 2009). None of the designated vehicle travel routes, camping areas, or visitor attractions are located within or near the Proposed Action site. The *Western Colorado Desert Routes of Travel Designations* (WECO) is an amendment to the CDCA Plan which establishes or revises off-road vehicle designations of areas and trails pertaining to public lands addressed by the CDCA Plan in the Western Colorado Desert portion of Imperial County. The plan balances off-highway vehicle (OHV) recreation with protection of natural resources within areas of Imperial County. The transmission line corridor site has no open routes designation. Refer to Section 3.14 Special Designations for further discussion on the ACEC.

Flat Tailed Horned Lizard Yuha Desert Management Area

The Yuha Basin ACEC includes the Yuha Desert Management Area, which is specifically designated by BLM for the flat-tailed horned lizard (*Phrynosoma mcallii*, FTHL), as outlined in the Flat-tailed Horned Lizard Rangewide Management Strategy (Strategy). The Flat-tailed Horned Lizard Interagency Coordinating Committee (FTHLICC) prepared the Strategy to provide guidance for the conservation and management of sufficient habitat to maintain the existing populations of FTHL in five MAs and one research area. Four of the MAs are located in California and one is located in Arizona. Further evaluation of impacts within the FTHL Ma is provided in Section 3.5 Biological Resources and Section 3.14 Special Designations also discusses the management goals for the ACEC.

Imperial Valley Natural Community Conservation Plan/Habitat Conservation Plan

The Imperial Valley Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) is an ongoing planning effort that includes the project area within its geographic boundaries. A planning agreement (IVNCCP/HCP 2006) has been implemented but the NCCP/HCP has not yet been developed.

Imperial County General Plan and Zoning

General Plan Land Use Element

The Land Use Element of the Imperial County General Plan identifies existing land use conditions and addresses future development for the unincorporated area of Imperial County in

which the Proposed Action area is located. The Land Use Element includes the following statement of intent:

“The intent of the County of Imperial in preparing the Land Use Element is to maintain and promote the economic prominence of agricultural enterprises, determine appropriate urban development centers and encourage their economic development, protect the existing character of rural and recreational communities and areas, and preserve the unique natural and cultural resources of the Imperial Valley region” (County of Imperial 2008).

The Land Use Element contains the following land use designations: Agriculture, Community Area, Government/Special Public, Industry, Recreation/Open Space, Rural Residential, Special Purpose Facility, Specific Plan Area, and Urban Area. Most of the southerly portion of the Proposed Action and Route Alternative 1 is within BLM land and is designated Recreation/Open Space in the County General Plan. In the areas where the alignments for the Proposed Action and Route Alternative 1 approach and cross to the north side of I-8, the County land use designation is Agriculture. The southern portion of Route Alternative 2 is also within Recreation/Open Space and enters into the Agriculture designation where the alignment is adjacent to the Westside Main Canal and continues within the Agriculture designation to the Dixieland Substation.

The Recreation/Open Space land use designation “recognizes the unique recreational character of Imperial County and includes desert, mountain, and waterfront areas with the potential for development as public or private parks and recreation facilities in appropriate areas.” It also states that “the majority of the land in this category is public land administered by the U.S. Bureau of Land Management (BLM) and owned by either BLM or the U.S. Bureau of Reclamation.” In addition to open space and recreational uses, the Recreation/Open Space designation also permits residential, agricultural, and mineral resource production “in appropriate areas” (County of Imperial 2003).

The Agriculture land use designation is intended to preserve lands for agricultural production and related activities such as packing and processing. The Land Use Element states that “no use should be permitted that would have a significant adverse effect on agricultural production” (County of Imperial 2008).

General Plan Agricultural Element

The County has adopted an Agricultural Element to ensure compatibility with adjacent land uses and provide clear guidelines for decisions in agricultural areas (County of Imperial 1996). Relevant goals of the Agricultural Element as it relates to the Proposed Action are the following:

Goal 1: All Important Farmland, including the categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, as defined by Federal and State agencies, should be reserved for agricultural uses.

Goal 3: Limit the introduction of conflicting uses into farming areas, including residential development of existing parcels, which may create the potential for conflict with continued agricultural use of adjacent property.

Land Use Ordinance

Imperial County zoning within the Proposed Action alignment and the alternative alignments is A-2 General Agriculture, A-2-R General Agricultural Rural, A-3 Heavy Agriculture, and G/S Government/Special Public. The A-2 and A-2-R zones allow for the most agricultural and aquaculture uses, as well as low density residential and incidental uses, but with restrictions on the number of animals that may be kept. The A-3 zone allows all uses permitted in the A-2 zone and also allows animal breeding, stockyards, processing of fruits and vegetables, and “transmission lines, including supporting towers, poles, microwave towers, utility substations.”

By conditional use permit, the A-2 and A-2-R zones allow electrical substations in an electrical transmission system (500-kV/230-kV/161-kV), and facilities for the transmission of electrical energy (100 to 200 kV). Both the A-2, A-2-R, and A-3 zones allow by conditional use permit: “Major facilities relating to the generation and transmission of electrical energy, provided such facilities are not, under State or Federal law, to be approved exclusively by an agency or agencies of the State and/or Federal governments and provided that such facilities shall be approved subsequent to coordination and review with the Imperial Irrigation District for electrical matters.”

The stated purpose of the G/S zone is to “allow for the construction, development, and operation of governmental facilities and special public facilities” but does not specify electrical substations or transmission lines in its list of permitted and conditional use permit uses.

County zoning maps show BLM lands, including lands in the Yuha Desert. No County zoning regulations are applicable to BLM lands, though some portions of BLM ownership that are noncontiguous with the Yuha Desert recreational use area are zoned A-2, A-3, and G/S.

3.1.2 Affected Environment

Methodology

As discussed above, the land use plans and policies that are applicable to the project site include the Federal Land Management Policy Act, 1976, CDCA Plan, Yuha Basin ACEC Management Plan, FTHL Rangeland Management Strategy Yuha Desert MA, Imperial Valley Natural Community Conservation Plan/Habitat Conservation Plan, and the County of Imperial General Plan and Zoning Code (Land Use and Agricultural Elements and the Land Use Ordinance). The following analysis discusses the consistency of the Proposed Action and alternatives with BLM and Imperial County land use goals and policies based on existing land uses and land use designations, proposed land uses, and standards related to land use.

CEQA Significance Criteria

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

- LU-1** Physically divide an established community.
- LU-2** 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.
- LU-3** Conflict with any applicable habitat conservation plan or natural communities' conservation plan.

Existing Conditions

The proposed project is located entirely within Imperial County in an area consisting primarily of agricultural fields, fallow lands, and BLM lands within the Yuha Desert. The Proposed Action and each of the alternative alignments would cross to the north of I-8, the San Diego and Arizona

Eastern Railway, and Evan Hewes Highway (County Road S-80). The Proposed Action and Route Alternative 1 would primarily be located on property under the land use authority of BLM and on fallow agricultural lands. Route Alternative 2 would be located on BLM land, fallow agricultural lands, and cultivated agricultural lands.

In addition to BLM land and fallow and cultivated agricultural lands, a residential area of approximately 20 homes located along two man-made recreational ski lakes is approximately 0.5-mile west of the Dixieland Substation, and an automobile salvage yard and a few scattered residences are located adjacent to Evan Hewes Highway. Also adjacent to Evan Hewes Highway, approximately 0.9-mile east of the substation, is a cattle feed yard.

3.1.3 Environmental Effects for the Proposed Action

3.1.3.1 Direct and Indirect Effects

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 close to the western edge of an existing agricultural area and would not be located within or along the boundary of any existing residential or community uses.

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 and generally involves low to moderate use densities. The Limited Use designation also limits all motorized travel to designated routes. The transmission line corridor site located within BLM land is designated as Utility Corridor “N” which consists of existing transmission lines and towers. The purpose of the Utility “N” Corridor is to allow a designated area within the BLM lands for utility structures such as transmission lines and to group them together in one area rather than allow them to be scattered throughout BLM lands. Although not currently used by OHV enthusiasts, there is a potential that BLM land surrounding the site is used by OHVs.

The CDCA Plan 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 IV and Dixieland substations are located within this designated corridor, as are

transmission lines of steel lattice towers that extend from south of the International Boundary to I-8 and west to San Diego County.

The CDCA Plan 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 (FTHLICC 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 Biological Resources.

Land use policies relevant to the Proposed Action are listed in Table 3.1-1. The table indicates whether the Proposed Action is consistent with or conflicts with the land use policy.

**Table 3.1-1
Land Use Policy Compatibility Table**

Land Use Policy	Determination	Compatibility
<i>California Desert Conservation Area Plan</i> <i>Applicable Land Use Policies</i>		
Multiple-use Guidelines – Within Class “L” Limited Use for the Land Use Activity #7: Transmission Facilities: New gas, electric, and water transmission and trans-desert telecommunications facilities may be allowed only within designated corridors (see Energy Production and Utility Corridors Element). NEPA requirements will be met.	The Proposed Action is allowed as it would occur within the designated Utility Corridor “N” and the NEPA requirements would be completed.	Compatible.
FTHL Rangeland Management Strategy (ICC 2003) (Yuha MA). The Flat-tailed Horned Lizard Rangeland Management Strategy has been prepared to provide guidance for the conservation and management of sufficient habitat to maintain extant populations of flat-tailed horned lizards in each of five MAs in perpetuity.	The Proposed Action occurs in the Yuha MA. Impacts would be mitigated to less than significant and would not contribute significantly to the 1 percent threshold of impacts allowed.	Compatible with implementation of applicable conservation measures.
<i>Yuha Basin Area of Critical Concern (ACEC) Management Plan</i>		
Prepared to protect unique cultural and unique resources – same transmission allowance as CDCA.	The Proposed Action is allowed as it would occur within the designated utility corridor N.	Compatible

Land Use Policy	Determination	Compatibility
<i>Imperial County General Plan Applicable Land Use Policies</i>		
Objective 1.2: Discourage the location of incompatible development adjacent to productive agricultural lands.	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.	Compatible.
Objective 8.4: Ensure that all future proposed private and public facilities are adequate to meet expected population growth and the needed additional services around local cities.	The Proposed Action is consistent with IID’s plan, which addresses current and future transmission line ability to accommodate expected population growth. IID is responsible for ensuring that electricity is available to the County consistent with the intent of this objective.	Compatible.
Objective 8.8: Ensure that the siting of future facilities for the transmission of electricity, gas, and telecommunications is compatible with the environment and County regulation.	The existing alignment of the utility ROW is compatible with County regulations. The Proposed Action does not require siting outside the existing CDCA Plan Utility Corridor “N”. This environmental assessment addresses any environmental impacts associated with the replacement of power poles.	Compatible.

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.

Measures to reduce impacts within FTHL MA to promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy are described in Section 3.5 Biological Resources, measures BIO-C and BIO-D. No additional measures are required.

3.1.3.2 CEQA Significance Determination

LU-1 Physically divide an established community

As discussed above, the Proposed Action is proposed along an existing boundary and would not result in a new feature that would divide an established community. As such, completion of the Proposed Action would have no impact.

LU-2 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

Based on the analysis above and as shown in Table 3.1-1, the Proposed Action would not require any change in land use designations. As such, the Proposed Action would be compatible with the applicable land use policies and has no potential to result in permanent adverse impacts to land use.

LU-3 Conflict with any applicable habitat conservation plan or natural community conservation plan

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. However, biological resource impacts within the FTHL MA 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. No additional measures are required.

3.1.4 Environmental Effects for Route Alternative 1

3.1.4.1 Direct and Indirect Effects

As described in Section 2.3, 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. Since Route Alternative 1 would follow the same approximate alignment as the Proposed Action, the transmission line corridor site would be located within BLM land designated as Utility Corridor “N”. As with the Proposed Action, Route Alternative 1 would not be located within or along the boundary of any existing residential or community uses. Land use policies relevant to Route Alternative 1 would be the same as the Proposed Action’s land use policies listed in Table 3.1-1. Therefore, Route Alternative 1 would not directly or indirectly affect an established community, require any change in land use designations, or conflict the FLMPA, CDCA Plan, or other applicable land use plans. As such, implementation of Route Alternative 1 would not result in direct or indirect effects to land use.

3.1.4.2 CEQA Significance Determination

LU-1 Physically divide an established community.

Route Alternative 1 would follow the same approximate alignment as the Proposed Action and would not impact an established community.

LU-2 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.

Route Alternative 1 would follow the same approximate alignment as the Proposed Action and would not require any change in land use designations. As such, this alternative would be compatible with the applicable land use policies and has no potential to result in permanent adverse impacts to land use.

LU-3 Conflict with any applicable habitat conservation plan or natural communities' conservation plan.

Route Alternative 1 is located within the geographic boundaries of the Imperial Valley NCCP/HCP, which is ongoing and not yet completed. As stated earlier, 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. Route Alternative 1 would follow the same approximate alignment as the Proposed Action and would have the same potential as the Proposed Action to cause an impact within an FTHL MA. Mitigation measures for biological resource impacts within the FTHL MA would be the same as required in Section 3.5 for the Proposed Action.

3.1.5 Environmental Effects for Route Alternative 2

3.1.5.1 Direct and Indirect Effects

As described in Section 2.4, 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.

Since Route Alternative 2 would follow the same approximate alignment as the Proposed Action, the transmission line corridor site would be located within BLM land designated as Utility Corridor “N”. As with the Proposed Action, Route Alternative 2 would not be located within or along the boundary of any existing residential or community uses. Land use policies relevant to Route Alternative 2 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, Route Alternative 2 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 Route Alternative 2 would not result in direct or indirect effects to land use.

3.1.5.2 CEQA Significance Determination

LU-1 Physically divide an established community.

Route Alternative 2 would follow the same approximate alignment as the Proposed Action and would not impact an established community.

LU-2 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.

Route Alternative 2 would follow a similar alignment as the Proposed Action though more easterly and adjacent to the west Side Main Canal. This alternative would not require any change in land use designations. As such, this alternative would be compatible with the applicable land use policies and has no potential to result in permanent adverse impacts to land use.

LU-3 Conflict with any applicable habitat conservation plan or natural communities’ conservation plan.

Route Alternative 2 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, no impacts would result from potential conflicts. More of Route Alternative 2 alignment would be within developed agricultural lands than would the Proposed Action, though the southerly portion of Route Alternative 2 would be within the FTHL MA. This portion of Route Alternative 2 would have the same potential as the Proposed Action to cause an impact to FTHL. Mitigation measures for biological resource impacts within the FTHL MA would be the same as required in Section 3.5 for the Proposed Action.

3.1.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.1.6.1 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 Plan, or other applicable land use plans would result. Therefore, implementation of the Reduced Liebert Substation Alternative would not result in direct or indirect effects to land use.

3.1.6.2 CEQA Significance Determination

LU-1 Physically divide an established community.

The Reduced Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not impact an established community.

LU-2 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.

The Reduced Liebert Substation Alternative would be generally within the same ROW and follow the same approximate alignment as the Proposed Action and would not require any change in land use designations. As such, this alternative would be compatible with the applicable land use policies and has no potential to result in permanent adverse impacts to land use.

LU-3 Conflict with any applicable habitat conservation plan or natural communities' conservation plan.

The Reduced Liebert Substation Alternative would be 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, no impacts would result from potential conflicts. 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 Biological Resources for the Proposed Action.

3.1.7 Environmental Effects for the No Liebert Substation Alternative

3.1.7.1 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 direct or indirect effects to land use.

3.1.7.2 CEQA Significance Determination

LU-1 Physically divide an established community.

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

LU-2 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.

The No Liebert Substation Alternative would follow the same alignment as the Proposed Action and would not require any change in land use designations. As such, this alternative would be compatible with the applicable land use policies and has no potential to result in permanent adverse impacts to land use.

LU-3 Conflict with any applicable habitat conservation plan or natural communities’ conservation plan.

As discussed above, the No Liebert Substation Alternative would be 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, no impacts would result from potential conflicts. 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 Biological Resources for the Proposed Action.

3.1.8 Environmental Effects for the No Action Alternative

3.1.8.1 Direct and Indirect Effects

As described in Section 2.7, no new transmission line, substation and substation improvements would be implemented under the No Action Alternative. As such, no direct or indirect effects to land use would result.

3.1.8.2 CEQA Significance Determination

LU-1 Physically divide an established community.

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no impacts related to dividing an established community would result.

LU-2 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.

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no impacts involving land use plans, policies, or regulations would result.

LU-3 Conflict with any applicable habitat conservation plan or natural communities' conservation plan.

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no impacts would result involving any applicable habitat conservation plan or natural community conservation plan.

3.1.9 Mitigation Measures

Mitigation for impacts within FTHL Management Area to promote management success of the FTHL consistent with the FTHL Rangewide Management Strategy are described in Section 3.5 Biological Resources, measures BIO-C and BIO-D. No additional measures are required.

3.1.10 Residual Impacts After Mitigation

Biological resource impacts within the FTHL Management Area would be reduced to less than significant under CEQA, by implementation of the Mitigation Measures BIO-C and BIO-D provided in Section 3.5 Biological Resources.

3.2 AGRICULTURAL RESOURCES

This section describes regulatory framework for agricultural resources as it applies to this project. In addition, the extent and nature of agricultural resources occurring within the project footprint for the Proposed Action, Route Alternative 1, Route Alternative 2, the Reduced Liebert Substation Alternative, the No Liebert Substation Alternative, and the No Action Alternative is described. Lastly, this section provides an analysis of the potential impacts on agricultural resources that could result from implementation of the Proposed Action and alternatives.

3.2.1 Relevant Laws, Regulations, and Plans

The Farmland Protection Policy Act (FPPA) (7 USC 4201–4209) and its regulations (7 Code of Federal Regulations [CFR] Part 658) require Federal agencies to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes Prime Farmland, Unique Farmland, and land of statewide or local importance.

The California Legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict land to agricultural and open space uses. The arrangement consists of a rolling term 10-year contract that is automatically renewed each year unless one of the parties files a notice of renewal. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value. If a notice of nonrenewal is filed, the property remains under contract through the end of the 10-year contract period and the annual tax assessment gradually increases. A contract can be cancelled. However, a county or city must make specific findings that are supported by substantial evidence. The landowner must pay a cancellation fee equal to 12.5 percent of the unrestricted, current fair market valuation of the property.

In 1998, another option was created for landowners under the Williamson Act that allows for the creation of Farmland Security Zones. These zones are created under a similar contract, but the term is for 20 years instead of 10 years. Landowners receive a greater reduction in property taxes and the lands generally cannot be annexed by a city or special district or acquired by a school district for school facilities. The same process for renewal or cancellation for Williamson Act contracts applies; however, the cancellation fee is twice as high (25 percent).

The BLM administered lands are not currently or historically farmed and the CDCA does not allow farming on the BLM lands. For all Multiple Use Classes described in the CDCA Plan guidelines, as presented in the CDCA Table 1, agricultural uses are not allowed, with the exception of livestock grazing.

3.2.2 Affected Environment

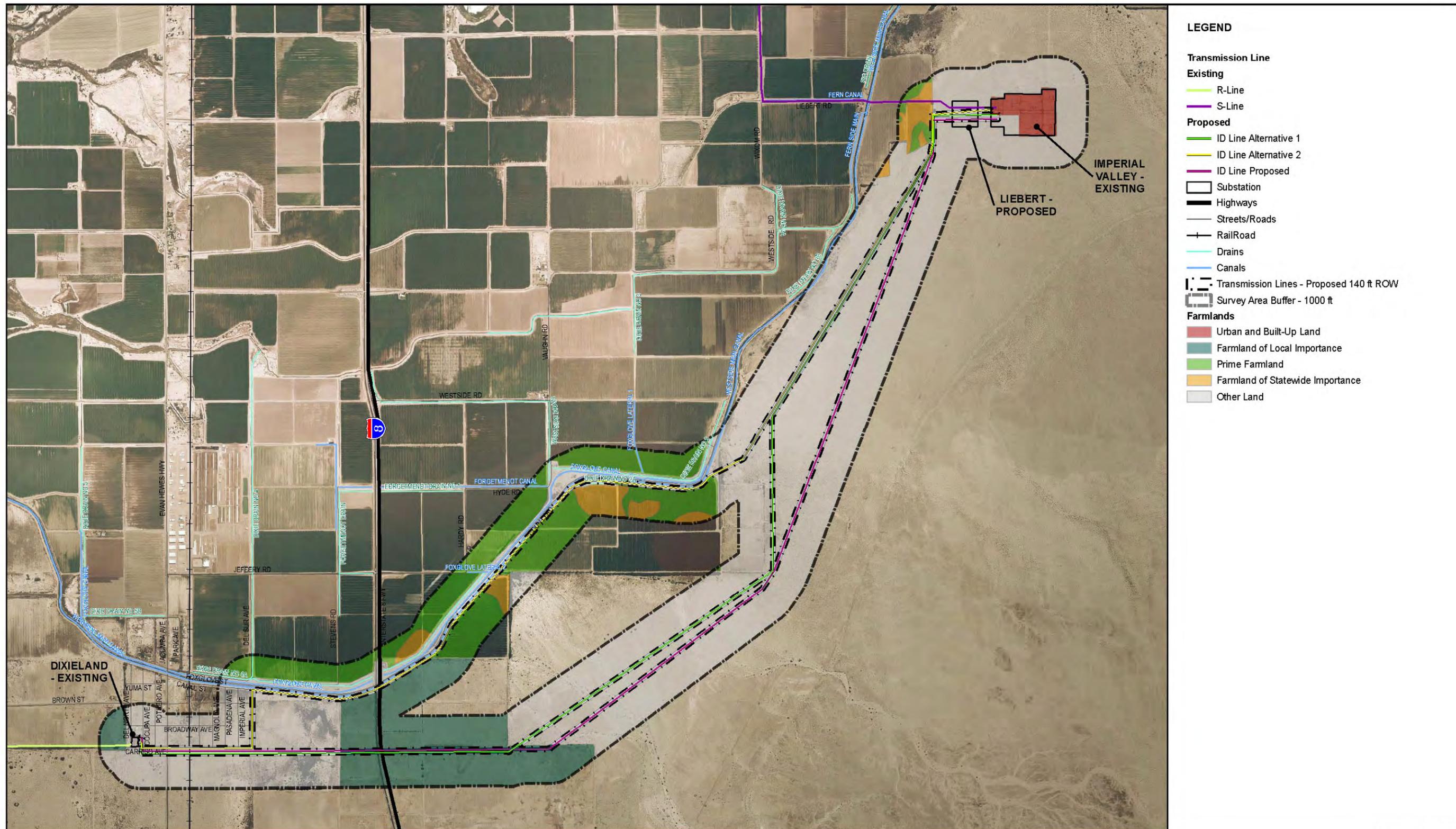
Methodology

Farmlands Mapping

The California Department of Conservation administers the Farmland Mapping and Monitoring Program (FMMP). The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is categorized as Prime Farmland. The Important Farmland Maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. The project alignment traverses mapped farmlands in Imperial County. Figure 3.2-1 shows the locations of important farmlands along the alternative alignments.

The FMMP uses the following criteria to identify mapped land uses:

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



Source: Imperial Irrigation District 2009; NAIP 2006; FMMF 2006

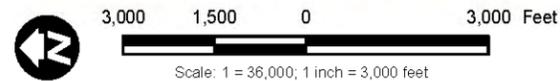


Figure 3.2-1

Farmlands

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

Path: P:\2009\09080060 IID 230kV\6.0 GIS\6.3 Layout\REPORT_Maps_ALL\MND_EA\Fig3.2-1_Farmlands.mxd, 12/21/09, Shahs2

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- **UNIQUE FARMLAND:** Farmland of lesser quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- **FARMLAND OF LOCAL IMPORTANCE:** Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.
- **GRAZING LAND:** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- **URBAN AND BUILT-UP LAND:** Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **OTHER LAND:** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

CEQA Significance Criteria

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

- AG-1** 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.
- AG-2** Conflict with existing zoning for agricultural use, or a Williamson Act contract.

- AG-3** Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use.

Existing Conditions

Agricultural Uses

The project area is located along the southwestern edge of a very large agricultural area associated with the Imperial Valley. The proposed alignment alternatives skirt the edge of this agricultural production area. Most of the agricultural land in this area is located to the east of the Westside Main Canal, which services agricultural operations in this area. Some active agricultural parcels are intermixed with some agricultural parcels that are currently fallow located to the west of the canal.

Williamson Act Status

A review of information from the California Department of Conservation indicates that contract lands are located at two locations along the Westside Main Canal (California Department of Conservation 2009).

3.2.3 Environmental Effects for the Proposed Action

3.2.3.1 Direct and Indirect Effects

According to the FMMP, lands mapped as Farmlands of Statewide Importance are located along portions of the proposed ROW on the northern half of the alignment (Figure 3.2-1). At this time, these areas are not actively being farmed and are privately owned.

Temporary and permanent construction impacts to important farmlands were calculated for the three alignments (Table 3.2-1). The poles themselves would each have a small permanent footprint that lies within a larger temporary construction area that would be disturbed during construction but would be restored to its approximate original condition upon completion of construction. Permanent impacts are calculated assuming each single pole would occupy 0.002 acre (10 by 10 feet) and the poles would be located as shown in Figure 2.1-5. Permanent impacts from the proposed 16-foot-wide maintenance road are calculated assuming it follows the alignment immediately adjacent to the proposed poles. Temporary impacts for the proposed 140-by 200-foot laydown areas are calculated assuming that laydown areas would be located within the 140-foot-wide ROW, adjacent to each proposed pole location, and positioned to avoid

identified sensitive resources. A minimum of 16 feet of laydown area is assumed to be needed around each side of a pole to ensure equipment access. The 16-foot-wide access roads would be constructed along the length of the transmission line ROW; however, as is the case along other IID ROWs, agricultural production may continue within the ROW once construction is completed, subject to IID's requirements for activities within the ROW. In some areas where the route alignment is situated along the edge of an agricultural use, it may also be possible to situate the access road along the edge of the parcel in such a way that direct impacts are greatly limited. While the access road calculations are assumed to be primarily a permanent impact with respect to agricultural lands, the actual impact in practice may be reduced for these reasons.

**Table 3.2-1
Estimated Temporary and Permanent Impacts to Important Farmlands (Acres)**

Alternative	Farmland Type	Temporary Impact	Permanent Impact
Proposed Action	Farmland of Local Importance	7.36	2.49
	Farmland of Statewide Importance	0.46	0
	Prime Farmland	0.29	0
	Total	8.11	2.49
Route Alternative 1	Farmland of Local Importance	6.18	2.07
	Farmland of Statewide Importance	0.1	0
	Prime Farmland	0.06	0
	Total	6.34	2.07
Route Alternative 2	Farmland of Local Importance	0.18	0
	Farmland of Statewide Importance	0.46	0.01
	Prime Farmland	3.12	0.04
	Total	3.76	0.05
Reduced Liebert Substation Alternative	Farmland of Local Importance	7.36	2.49
	Farmland of Statewide Importance	0.46	0
	Prime Farmland	0.29	0
	Total	8.11	2.49
No Liebert Substation Alternative	Farmland of Local Importance	7.36	2.49
	Farmland of Statewide Importance	0.46	0
	Prime Farmland	0.29	0
	Total	8.11	2.49
No Project Alternative	Farmland of Local Importance	0	0
	Farmland of Statewide Importance	0	0
	Prime Farmland	0	0
	Total	0	0

As indicated, the Proposed Action would temporarily impact approximately 8.11 acres of agricultural lands during construction. 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. Some of the lands are not in, or planned for, production. While these impacts are adverse, they are negligible due to the relatively small area of disturbance and the ability for farming operations to continue around the facilities proposed.

The Proposed Action would not permanently change the existing land use within the proposed transmission line ROW. Construction activities in the temporary construction areas would not result in any permanent change to Williamson Act contract lands or cause any changes to zoning because there are no contracts in place on lands that would be affected along this alignment.

Other than the direct physical changes noted above, no other changes would occur from the Proposed Action 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.

As previously discussed, 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 of Federal lands and would allow the continuation of farming operations around the facilities proposed. Additionally, 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.

3.2.3.2 CEQA Significance Determination

AG-1 Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

As indicated above, the Proposed Action would temporarily impact approximately 8.11 acres of agricultural lands during construction. 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, 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. Some of the lands are not in, or planned for, production. Due to the relatively small area of disturbance and the ability for

farming operations to continue around the facilities proposed, impacts to conversion of farmland to nonagricultural use would be less than significant.

AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

The Proposed Action would not permanently change the existing land use within the proposed transmission line ROW. Construction activities in the temporary construction areas would not result in any permanent change to Williamson Act contract lands or cause any changes to zoning because there are no contracts in place on lands that would be affected along this alignment. Therefore, no impacts to existing zoning and Williamson Act contracts would occur within the Proposed Action transmission line ROW.

AG-3 Other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use.

Other than the direct physical changes noted above, no other changes would occur from the Proposed Action 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.

3.2.4 Environmental Effects for Route Alternative 1

3.2.4.1 Direct and Indirect Effects

As indicated in Table 3.2-1, above, Route Alternative 1 would temporarily impact approximately 6.34 acres of agricultural lands during construction. Furthermore, IID would restore the work sites to their original condition upon completion of the project. Depending on the location and spacing of the poles to be constructed, and assuming 53 poles would be installed with an average spacing of 800 to 900 feet, up to 2.07 of Farmland of Local importance would be permanently impacted by this alternative from placement of the transmission line poles. While these impacts are adverse, they are negligible. They only disturb a relatively small area and would allow the continuation of farming operations around the facilities proposed. Additionally, 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.

3.2.4.2 CEQA Significance Determination

AG-1 Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

Similar to the Proposed Action, impacts associated with the placement of the transmission line poles and the maintenance road under Route Alternative 1 would occur to approximately 2.07 acres of Farmlands of Local Importance. As such, these impacts are less than significant due to the relatively small area of disturbance and the ability for farming operations to continue around the facilities proposed.

AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

Route Alternative 1 would not permanently change the existing land use within the proposed transmission line ROW. Construction activities in the temporary construction areas would not result in any permanent change to Williamson Act contract lands or cause any changes to zoning because there are no contracts in place on lands that would be affected along this alignment. Therefore, no impacts to existing zoning and Williamson Act contracts would occur within the transmission line ROW proposed for this alternative.

AG-3 Other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use.

Other than the direct physical changes noted above, no other changes would occur from Route Alternative 1 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.

3.2.5 Environmental Effects for Route Alternative 2

3.2.5.1 Direct and Indirect Effects

As indicated in Table 3.2-1, above, Route Alternative 2 would temporarily impact approximately 3.76 acres of agricultural lands during construction. However, IID would restore the work sites to their original condition upon completion of the project. Depending on the location and spacing

of the poles to be constructed, and assuming 53 poles would be installed with a spacing of 650 feet, up to 0.05 acre of farmland would be permanently impacted by this alternative from placement of the transmission line poles (0.01 acre of Farmland of Statewide Importance and 0.04 acre of Prime Farmland). While these impacts are adverse, they are negligible due to the small area of disturbance and the ability for farming operations to continue around the facilities proposed.

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). However, these adverse effects only disturb a relatively small area and would allow the continuation of farming operations around the facilities proposed. Additionally, 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.

3.2.5.2 CEQA Significance Determination

AG-1 Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

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). However, these adverse effects only disturb a relatively small area and would allow the continuation of farming operations around the facilities proposed. This would result in a less-than-significant impact.

AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

Route Alternative 2 would not permanently change the existing land use within the proposed transmission line ROW. Construction activities in the temporary construction areas would not result in any permanent change to Williamson Act contract lands or cause any changes to zoning. Contract lands along this alignment can be largely avoided by constructing the transmission line components along the edges of the agricultural fields. Therefore, less-than-significant impacts to existing zoning and Williamson Act contracts would occur within the transmission line ROW proposed for this alternative.

AG-3 Other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use.

Other than the direct physical changes noted above, no other changes would occur from Route Alternative 2 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.

3.2.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.2.6.1 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 be the same as the Proposed Action. While these impacts are adverse, they are negligible due to the small area of disturbance and the ability for farming operations to continue around the facilities proposed.

3.2.6.2 CEQA Significance Determination

AG-1 Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

The transmission line route for the Reduced Liebert Substation Alternative would remain the same as the Proposed Action and the proposed Liebert Substation under the preferred alternative and this alternative would not affect agricultural lands. The reduction in size and modest relocation of the Liebert Substation would not alter the degree of impacts to farmlands. Direct adverse effects associated with placement of the transmission line poles and the maintenance road would be the same as the Proposed Action. These adverse effects only disturb a relatively small area and would allow the continuation of farming operations around the facilities proposed. This would result in a less-than-significant impact.

AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

As with the Proposed Action, the Reduced Liebert Substation Alternative would not permanently change the existing land use within the proposed transmission line ROW. Construction activities in the temporary construction areas would not result in any permanent change to Williamson Act contract lands or cause any changes to zoning. Contract lands along this alignment can be largely avoided by constructing the transmission line components along the edges of the agricultural fields. Therefore, no impacts to existing zoning and Williamson Act contracts would occur within the transmission line ROW proposed for this alternative.

AG-3 Other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use.

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. No additional impacts related to permanent conversion of farmland to nonagricultural use would occur.

3.2.7 Environmental Effects for the No Liebert Substation Alternative

3.2.7.1 Direct and Indirect Effects

The No Liebert Substation Alternative would eliminate the proposed Liebert Substation. The transmission line route for the No Liebert Substation Alternative would remain the same as the Proposed Action. Since the Liebert Substation described in the preferred alternative does not affect farmlands removal of the Liebert Substation from the project would not alter the degree of impacts to farmlands. Adverse effects would only disturb a relatively small area and would allow the continuation of farming operations around the facilities proposed.

3.2.7.2 CEQA Significance Determination

AG-1 Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

The transmission line route for the No Liebert Substation Alternative would remain the same as the Proposed Action and would completely remove the proposed Liebert Substation. Direct

adverse effects associated with placement of the transmission line poles and the maintenance road would be the same as described for the Proposed Action. The adverse effects would only disturb a relatively small area and farming operations around the proposed facilities would continue. This would result in a less-than-significant impact.

AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

The No Liebert Substation Alternative would have the same impacts than the Proposed Action. As such, the No Liebert Substation Alternative would not permanently change the existing land use within the proposed transmission line ROW. Construction activities in the temporary construction areas would not result in any permanent change to Williamson Act contract lands or cause any changes to zoning. Contract lands along this alignment can be largely avoided by constructing the transmission line components along the edges of the agricultural fields. Therefore, no impacts to existing zoning and Williamson Act contracts would occur within the transmission line ROW proposed for this alternative.

AG-3 Other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use.

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. No additional impacts related to permanent conversion of farmland to nonagricultural use would occur.

3.2.8 Environmental Effects for the No Action Alternative

3.2.8.1 Direct and Indirect Effects

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 voltage support 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 as a result of this project.

3.2.8.2 CEQA Significance Determination

AG-1 Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

As discussed above, implementation of the No Action Alternative would not require any physical change to the existing and surrounding agricultural uses. As such, there would be no direct or indirect adverse effects to agricultural resources as a result of this project.

AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

Implementation of the No Action Alternative would not require any physical change to the existing and surrounding agricultural uses. Therefore, the No Action Alternative would not conflict with existing zoning for agricultural use or adversely affect Williamson Act contract lands. In addition, no agricultural soils would be directly affected by this alternative and there would be no adverse effects to agricultural resources as a result of this project.

AG-3 Other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use.

Implementation of the No Action Alternative would not require any physical change to the existing and surrounding agricultural uses. Therefore, the No Action Alternative would not result in any physical changes to the existing environment that would result in the conversion of designated Farmlands to nonagricultural use and there would be no adverse effects to agricultural resources as a result of this project.

3.2.9 Mitigation Measures

No mitigation measures are required.

3.2.10 Residual Impacts After Mitigation

The impact to agricultural resources would be less than significant.

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3.3 SOILS AND GEOLOGY

This section describes the soils and geologic setting occurring within the project vicinity and evaluates the potential impacts related to geologic conditions that could result from implementation of the Proposed Action and associated alternatives. Some technical information in this section was taken from a report titled Geotechnical Investigation for Dixieland Substation (Petra 2007).

3.3.1 Relevant Laws, Regulations, and Plans

Development of the Proposed Action is subject to a number of Federal, State, and local regulatory requirements and industry standards related to potential geologic and soil hazards. These guidelines typically involve measures to evaluate risk and mitigate potential hazards through design and construction techniques.

Federal

USGS Landslide Hazard Identification Program

The U.S. Geological Survey (USGS), in fulfillment of the requirements of Public Law 106-113, created the National Landslide Hazards Program to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The Federal Emergency Management Agency (FEMA) is the responsible agency for the long-term management of natural hazards.

State

California Building Code

The California Building Code (CBC) guidelines are derived from the Uniform Building Code and encompass criteria specific to California, including geologic and seismic characteristics. The 2007 California Building Code (defined in California Code of Regulations [CCR] Part 2 of Title 24) includes additions to the previous building code that make it more stringent, in particular with regard to seismic and earthquake conditions for critical structures such as essential facilities, public schools, and hospitals. The CBC, which is included in Title 24 of the California Administrative Code, is a compilation of three types of building standards from three different origins. International and national model code standards adopted into Title 24 apply to all

occupancies in California except for modifications adopted by State agencies and local governing bodies. Facilities and structures such as power plants, freeways, emergency management centers (e.g., traffic management, 911 centers), and dams are regulated under criteria developed by various California and Federal agencies.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Act (Public Resources Code Sections 2621–2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as “Earthquake Fault Zones” around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and State agencies for their use in planning efforts. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) (Public Resources Code Sections 2690–2699.6) addresses earthquake hazards from nonsurface fault rupture, including liquefaction and seismically induced landslides. SHMA established a mapping program for areas that have the potential for liquefaction, landslide, strong groundshaking, or other earthquake or geologic hazard. SHMA also specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

Local

County of Imperial

The County of Imperial General Plan Seismic and Public Safety Element identifies and evaluates geologic hazards in Imperial County. The goals and policies of the Seismic and Public Safety Element are provided to reduce the threat of seismic and public safety hazards within the

unincorporated areas of the County. Goals include, but are not limited to, the implementation of codified ordinances and procedures that require the review and restriction of land use due to possible natural hazards and implement the geologic hazards section of the County's Codified Ordinances pursuant to the requirements of the Alquist-Priolo Geologic Hazards Zone Act (County of Imperial 2008).

Other Requirements

Uniform Building Code and Greenbook Standards

The Uniform Building Code (UBC) and Greenbook standards are produced through joint efforts by industry groups, such as the International Conference of Building Officials (ICBO) and the American Public Works Association, to provide standard specifications for engineering and construction activities, including measures to address geologic and soil issues. Specifically, these measures encompass issues such as seismic parameters (e.g., classifying seismic zones and faults), engineered fill specifications (e.g., compaction and moisture content), expansive soil characteristics, and pavement design. The referenced guidelines, while not formal requirements, are widely accepted by regulatory authorities and are routinely included in standards such as municipal grading codes. The UBC and Greenbook guidelines are regularly updated to reflect current industry standards and practices.

3.3.2 Affected Environment

3.3.2.1 Methodology

As discussed above, potential impacts to soils and geology were evaluated based on technical information provided in the Geotechnical Investigation for Dixieland Substation Report. Federal, State, and local regulatory requirements and industry standards also provide guidelines to evaluate risk related to potential geologic and soil hazards and offer strategies for mitigating potential hazards through design and construction techniques. The following analysis will discuss the potential impacts to soils and geologic hazards associated with the Proposed Action and alternatives.

3.3.2.2 CEQA Significance Criteria

A significant impact related to soils and geology would occur if implementation of the Proposed Action would:

- SG-1** 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.
- SG-2** Result in substantial soil erosion or the loss of topsoil.
- SG-3** 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.
- SG-4** Be located on expansive soil, as defined in Table 18-1-B of the UBC (2007), creating substantial risks to life or property.
- SG-5** 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.

3.3.2.3 Existing Conditions

The project lies within the Salton Trough geomorphic province of southern California. The Salton Trough is a large northwest-trending structural depression that extends approximately 180 miles from San Geronio Pass to the Gulf of California. Part of the basin, including the Salton Sea, lies below sea level and has progressively been filling with sediments eroded from surrounding mountain ranges and the Colorado River. Geologic materials likely to occur within the project vicinity include lake deposits with minor amounts of alluvial sand. Lake deposits are typically silts and clays that can be corrosive and highly expansive (Petra 2007).

The project is located in Imperial County and is subject to moderate to high seismic activity, as is most of southern California. More small to moderate earthquakes have occurred in the Imperial Valley area than along any other section of the San Andreas Fault system. In recent history, the area has experienced 12 earthquakes of magnitude 6.0 or greater on the Richter scale, with the strongest being a magnitude 7.2 on the Imperial Fault in 2010. The project site is located near the San Andreas Fault Zone, Imperial Fault Zone, Superstition Fault Zone, and the San Jacinto Fault

Zone. The San Andreas and the San Jacinto faults are two of California's most active faults. Both of these faults, as well as the Elsinore Fault Zone, have the potential to generate future earthquakes within the region. The project alignment is within approximately 35 miles of the San Andreas Fault, 10 miles of both the Superstition Hills and Imperial faults, and 20 miles of the Elsinore Fault. As noted in the County of Imperial General Plan Seismic and Public Safety Element, the electrical transmission and distribution system is moderately resistant to earthquakes (County of Imperial 2008).

Landslides and ground failures are a common geologic hazard and can be a secondary effect of seismic activity. A landslide refers to slowly to very rapidly descending rock or debris caused by the pull of gravity. Landslides are most common in hilly areas and can be accelerated by grading and cutting activities without proper stabilization methods. The overall potential for landslides in Imperial County is low to moderate, with moderate landslide potential occurring along the Coast Range Mountains and other hillside areas throughout the County. The project vicinity is mapped as having minimal landslide potential on the County of Imperial Landslide Activity Map in the Seismic and Public Safety Element (County of Imperial 2008).

Erosion is a natural activity that removes rock fragments or soil, typically through wind or water movement. Human activities can accelerate the rate of erosion through exposure of soils and changes in water drainage patterns, among others. The areas in Imperial County that are most subject to erosion are the Algodones Sand Dunes paralleling the East Mesa and Superstition Mountain, and the Chocolate, Picacho, Cargo Muchacho, and Coast Range mountains. The remainder of Imperial County, including the project vicinity, is generally flat and experiences low levels of natural erosion. The Erosion Activity Map in the Seismic and Public Safety Element shows that the project area has a low potential for erosion (County of Imperial 2008).

3.3.3 Environmental Effects for the Proposed Action

3.3.3.1 Direct and Indirect Effects

As stated below in further detail, 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, there would be no direct or indirect adverse effects to soils and geology.

3.3.3.2 CEQA Significance Determination

SG-1 Expose people or structures to adverse effects from the rupture of a known fault, strong seismic ground shaking, seismic related ground failure, or landslides

The Proposed Action is located in a seismically active area and is in relative proximity to active known faults as described in Section 3.3.2. During the operational life of the project, it is reasonable to assume that the project site will experience various types of ground movement due to seismic activity originating on local and/or regional faults.

As outlined in Section 3.3.1, there are multiple regulatory codes and requirements related to the engineering and construction of structures to minimize damage due to seismic activity. The Proposed Action would adhere to all applicable design and engineering requirements. Many of the pole foundations would be excavated to a depth of 15 to 30 feet and stabilized in bedrock rather than just surface soils and, therefore, not as prone to adverse impact from ground surface failures. The new and expanded substation components would also be properly engineered for seismic stability. Site-specific geotechnical investigations, such as the previously prepared Dixieland Substation geotechnical investigation (Petra 2007), would be conducted for all portions of the project. Specifications detailed in the geotechnical investigations, such as foundation design recommendations, seismic design coefficients, earthwork recommendations, utility trench backfill requirements, and any other design parameters, would be incorporated into the design of the project components.

While proper engineering and adherence to appropriate regulatory design requirements and industry standards minimize the potential for structural impacts due to seismic activity, it is impossible to ensure that a built structure is entirely resistant to all seismic impacts. In the case

of transmission lines and substation components, adverse effects from seismic activity are often in the form of power lines snapping or other similar incidents resulting in damage to equipment and the subsequent loss of power. In densely populated settings, downed or damaged power lines and system components can cause serious danger; however, the Proposed Action includes the placement of transmission poles and substations in locations that are not in the vicinity of other structures or in immediate proximity to areas inhabited by humans. The potential for adverse effects or harm to people or structures from seismic-related impacts is minimal, as project components would generally be located in open space areas, away from areas of general human use. The transmission lines would cross I-8 and could result in adverse effects if seismic activity were to cause live lines to be downed or damaged on the heavily traveled interstate. Proper design and engineering of the overhead crossing would reduce the risks from downed power lines near the interstate and the impact would be less than significant.

Based on the discussions above, including proper engineering and design of transmission poles and substation components in accordance with all applicable seismic standards, and the location of the new facilities in areas away from other structures or areas of high human use, the potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides is less than significant.

SG-2 Result in substantial soil erosion or the loss of topsoil

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. The pole structures would vary from 6 to 10 feet in diameter and would not necessitate a large area of exposure of previously undisturbed soils. In addition, much of the disturbed area for the pole foundations would be covered in concrete and there would be minimal potential for soil erosion. Any excavated soils would be used during compaction around the poles or the maintenance road. Construction of the proposed Liebert Substation located north of the existing IV Substation and the expansion of the Dixieland Substation would require minor clearing and leveling of the site, paving of roadways at the Dixieland Substation site and immediate vicinity (within 500 feet), and installation of the on-site transmission poles and equipment. The site of the new Liebert Substation, just north of the existing IV Substation, is flat with minimal vegetation. Similarly, the expansion of the Dixieland Substation would occur on generally flat and sparsely vegetated land. The siting of the Liebert Substation and expanded Dixieland Substation at these proposed locations would not significantly modify the soils and geology of the immediate area, and significant soil erosion during construction or operation would not occur with the implementation of best management practices that are also designed to

achieve dust suppression cited in the Imperial County Air Pollution Control District Rules 800-806 of Regulation VIII.

There are no large slopes or other geologic features along the transmission alignment or at substation locations that would require large cuts or substantial grading that may result in erosion or loss of topsoil. As noted in Section 3.3-1, the project vicinity is located in an area with low potential for erosion.

During all construction activities, standard best management practices and soil erosion measures would be implemented to further reduce erosion potential. These measures are described in Section 3.7, Air Quality, and Section 3.8, Hydrology and Water Quality, in this document. 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.

Because 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 potential for the Proposed Action to cause substantial soil erosion or loss of topsoil is considered less than significant.

SG-3 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse

Because of the linear nature of transmission lines, the location of the transmission poles crosses 7 miles of multiple geologic units and various geologic conditions. It can be expected that certain unstable geologic conditions would be encountered along the project alignment as part of the Proposed Action.

Proper engineering of the pole foundations would comply with all applicable design and construction requirements and industry standards related to geologic stability. Specifications detailed in the geotechnical investigations, such as foundation design recommendations, seismic design coefficients, earthwork recommendations, utility trench backfill requirements, and any other design parameters, would be incorporated into the design of the project components. Regulations and codes address not only the design of the structure for safety, but also the stability of surrounding areas. If unstable geologic conditions are present at transmission pole locations, the appropriate measures based on industry standards would be included in foundation design to protect the stability of the surrounding land. Installation of the pole foundations would

require a relatively small area of permanent ground disturbance, as foundations would range in diameter from 6 to 10 feet and excavation depths would vary from 15 to 30 feet. This relatively small area of disturbance would minimize the potential to create unstable soil or geologic conditions. At a depth of up to 30 feet, it is expected that most foundations would be secured in the underlying geologic layers, thus reducing potential for creating ground failure that could result in a geologic hazards to the surrounding area. 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 be less than significant.

SG-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2007), creating substantial risks to life or property

Various soil types would be encountered during excavation for installation of the new poles included in the Proposed Action as well as the two substation sites. Site-specific soil sampling has not taken place. Excavations for foundations would be made with power drilling equipment and the width of structure foundations would vary from 6 to 10 feet in diameter to a depth of up to 30 feet. All foundations would be specifically engineered to meet or exceed applicable requirements related to expansive soils or other geologic conditions at the site. At a depth of up to 30 feet, it is expected that most foundations would be secured in the underlying geologic layers and extend much deeper than the soil layer at the ground surface that might contain expansive soil characteristics, which would minimize adverse effects relative to expansive soils.

In addition, the location of the transmission poles and substations is not in proximity to other structures or to areas occupied by humans. At some locations along the project alignment there are nearby roads; however, most of these roads are rural gravel roads used primarily for agricultural purposes and are not heavily traveled. The transmission lines would cross over I-8, which is a busy interstate; however, proper engineering and design would minimize the potential for expansive soils to impact the transmission poles and create a dangerous situation near the interstate. Specifications detailed in the geotechnical investigations, such as foundation design recommendations, seismic design coefficients, earthwork recommendations, utility trench backfill requirements, and any other design parameters would be incorporated into the design of the project components.

For these reasons, any adverse effects resulting from a transmission pole location or substation location on expansive soils would not create a substantial risk to life or property. Proper

engineering and distance from other structures and human activity would result in a less-than-significant impact related to risks from expansive soils.

SG-5 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

The proposed project does not include the use of septic tanks or alternative waste water disposal systems. The installation and operation of the Proposed Action would not generate waste water requiring disposal in sewers, septic tanks, or other waste water disposal systems, therefore there would be no impact relative to the capability of the soils to support waste water disposal.

3.3.4 Environmental Effects for Route Alternative 1

3.3.4.1 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. 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 Route Alternative 1 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 Route Alternative 1, 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 below in further detail, Route Alternative 1 would have no direct and indirect adverse effects to soils and geology.

3.3.4.2 CEQA Significance Determination

SG-1 Expose people or structures to adverse effects from the rupture of a known fault, strong seismic ground shaking, seismic related ground failure, or landslides

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. 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. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. The alignment proposed for Route Alternative 1 would place transmission poles and substations in locations that are not near other structures or in immediate proximity to areas inhabited by humans. The potential for adverse effects or harm to people or structures from seismic-related impacts from this alternative route is minimal, as project components would generally be located in open space areas, away from areas of human use. The exception is the transmission crossing over I-8. Proper design and engineering of the overhead crossing would reduce the risks from downed power lines near the interstate.

Similar to the Proposed Action, with proper engineering and design of Route Alternative 1 transmission poles and substation components in accordance with all applicable seismic standards and the location of the new facilities in areas away from other structures or areas of high human use, the potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides is less than significant.

SG-2 Result in substantial soil erosion or the loss of topsoil

Components of this alternative and the Proposed Action are basically identical with slight difference in alignment. As described for the Proposed Action, construction of Route Alternative 1 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 best management practices and soil erosion 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. As noted in Section 3.3-1, the project vicinity has a low potential for erosion.

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 Route Alternative 1 to cause substantial soil erosion or loss of topsoil is considered less than significant.

SG-3 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse

As discussed under the analysis for the Proposed Action, it can be expected that certain unstable geologic conditions would be encountered along Route Alternative 1 transmission line alignment. Proper engineering of the pole foundations would comply with all applicable design and construction requirements and industry standards related to geologic stability. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. Installation of poles would require a relatively small area of disturbance and it is expected that most foundations would be secured in the underlying bedrock, thus reducing potential for creating ground failure that could result in a geologic hazards to the surrounding area. 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.

SG-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2007), creating substantial risks to life or property

Similar to the Proposed Action, various soil types would be encountered during excavation for installation of the new transmission poles included in Route Alternative 1 and the two substation sites. All foundations would be specifically engineered to meet or exceed applicable requirements related to expansive soils or other geologic conditions at the site. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. At a depth of up to 30 feet, it is expected that most foundations would be secured in the underlying geologic layers and extend much deeper than the soil layer at the ground surface that might contain expansive soil characteristics, which would minimize adverse effects relative to expansive soils. As described for the Proposed Action, the location of the

transmission poles and substations included in Route Alternative 1 is not in proximity to other structures or to areas occupied by humans. For these reasons, any adverse effects resulting from a transmission pole or substation location on expansive soils would not create a substantial risk to life or property. Proper engineering and distance from other property or human activity would result in a less-than-significant impact related to risks from expansive soils.

SG-5 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

Similar to 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.

3.3.5 Environmental Effects for Route Alternative 2

3.3.5.1 Direct and Indirect Effects

Route Alternative 2 would be similar in engineering and design as the Proposed Action and Route Alternative 1 with only a slight difference in alignment. Though this alignment would be located along a higher use area than the Proposed Action and Route Alternative 1, the adjacent roadways are primarily used for canal access and farming activities and are not highly traveled roadways by the general public. The potential for adverse effects or harm to people or structures from seismic-related impacts to this alternative is still considered minimal, as project components would generally be located in unpopulated areas away from areas of high human use or habitation. As discussed in further detail below, Route Alternative 2 would have no direct and indirect adverse effects to soils and geology.

3.3.5.2 CEQA Significance Determination

SG-1 Expose people or structures to adverse effects from the rupture of a known fault, strong seismic ground shaking, seismic related ground failure, or landslides

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. 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. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components.

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. This alternative alignment would place a substantial portion of the transmission line adjacent to the Foxglove Canal and associated access roads along the canal. Though this alignment would be located along a higher use area than the Proposed Action and Route Alternative 1, the adjacent roadways are primarily used for canal access and farming activities and are not highly traveled roadways by the general public. The potential for adverse effects or harm to people or structures from seismic-related impacts to this alternative is still considered minimal, as project components would generally be located in unpopulated areas away from areas of high human use or habitation. Similar to the Proposed Action, the exception is the transmission crossing over I-8. Proper design and engineering of the overhead crossing would reduce the risks from downed power lines near the interstate.

Similar to the Proposed Action, with proper engineering and design of the Route Alternative 2 transmission poles and substation components in accordance with all applicable seismic standards and the location of the new facilities in areas away from other structures or areas of high human use, the potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides is less than significant.

SG-2 Result in substantial soil erosion or the loss of topsoil

Components of this alternative and the Proposed Action are basically identical, with different alignments. 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 best management practices and soil erosion 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. As noted in Section 3.3-1, the project vicinity has a low potential for erosion.

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 Route Alternative 2 to cause substantial soil erosion or loss of topsoil is considered less than significant.

SG-3 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse

As discussed under the analysis for the Proposed Action, it can be expected that certain unstable geologic conditions would be encountered along the transmission line alignment. Proper engineering of the pole foundations would comply with all applicable design and construction requirements and industry standards related to geologic stability. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. Installation of poles would require a relatively small area of disturbance and it is expected that most foundations would be secured in the underlying geologic layers, thus reducing potential for creating ground failure that could result in geologic hazards to the surrounding area. 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.

SG-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2007), creating substantial risks to life or property

Similar to the Proposed Action, various soil types would be encountered during excavation for installation of the new transmission poles included in Route Alternative 2 and the two substation sites. All foundations would be specifically engineered to meet or exceed applicable requirements related to expansive soils or other geologic conditions at the site. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. At a depth of up to 30 feet, it is expected that most foundations would be secured in the underlying geologic layers and extend much deeper than the soil layer at the ground surface that might contain expansive soil characteristics, which would minimize adverse effects relative to expansive soils. As described for the Proposed Action, the location of the transmission poles and substations included in Route Alternative 2 is not in proximity to other structures or to areas occupied or heavily used by humans. For these reasons, any adverse effects resulting from a transmission pole location or substation location on expansive soils would not

create a substantial risk to life or property. Proper engineering and distance from other property or human activity would result in a less-than-significant impact related to risks from expansive soils.

SG-5 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

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.

3.3.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.3.6.1 Direct and Indirect Effects

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. 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 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 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 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 Reduced Liebert Substation Alternative would have no direct and indirect adverse effects to soils and geology.

3.3.6.2 CEQA Significance Determination

SG-1 Expose people or structures to adverse effects from the rupture of a known fault, strong seismic ground shaking, seismic related ground failure, or landslides

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. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components.

The Reduced 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. Similar to the Proposed Action, the exception is the transmission crossing over I-8. Proper design and engineering of the overhead crossing would reduce the risks from downed power lines near the interstate.

Similar to the Proposed Action, with proper engineering and design of the Reduced Liebert Substation Alternative transmission poles and substation components in accordance with all applicable seismic standards and the location of the new facilities in areas away from other structures or areas of high human use, the potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides is less than significant.

SG-2 Result in substantial soil erosion or the loss of topsoil

Components of this alternative and the Proposed Action are basically identical, with the exception of a reduced Liebert Substation footprint. As described for the Proposed Action, construction of the Reduced 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 new and expanded substations. During all construction activities, standard best

management practices and soil erosion 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. As noted in Section 3.3-1, the project vicinity has a low potential for erosion.

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 the Reduced Liebert Substation Alternative to cause substantial soil erosion or loss of topsoil is considered less than significant.

SG-3 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse

As discussed under the analysis for the Proposed Action, it can be expected that certain unstable geologic conditions would be encountered along the transmission line alignment. Proper engineering of the pole foundations would comply with all applicable design and construction requirements and industry standards related to geologic stability. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. Installation of poles would require a relatively small area of disturbance and it is expected that most foundations would be secured in the underlying geologic layers, thus reducing potential for creating ground failure that could result in geologic hazards to the surrounding area. 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.

SG-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2007), creating substantial risks to life or property

Similar to the Proposed Action, various soil types would be encountered during excavation for installation of the new transmission poles included in the Reduced Liebert Substation Alternative and the two substation sites. All foundations would be specifically engineered to meet or exceed applicable requirements related to expansive soils or other geologic conditions at the site. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. At a depth of up to 30 feet, it is expected that most foundations would be secured in the underlying geologic layers and extend much deeper than the soil layer at the ground surface that might contain expansive soil characteristics, which would minimize

adverse effects relative to expansive soils. As described for the Proposed Action, the location of the transmission poles and substations included in the Reduced Liebert Substation Alternative is not in proximity to other structures or to areas occupied or heavily used by humans. For these reasons, any adverse effects resulting from a transmission pole location or substation location on expansive soils would not create a substantial risk to life or property. Proper engineering and distance from other property or human activity would result in a less-than-significant impact related to risks from expansive soils.

SG-5 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

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.

3.3.7 Environmental Effects for the No Liebert Substation Alternative

3.3.7.1 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, there would be no construction of the Liebert Substation. 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 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; 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.

3.3.7.2 CEQA Significance Determination

SG-1 Expose people or structures to adverse effects from the rupture of a known fault, strong seismic ground shaking, seismic related ground failure, or landslides

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. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components.

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. Similar to the Proposed Action, the exception is the transmission crossing over I-8. Proper design and engineering of the overhead crossing would reduce the risks from downed power lines near the interstate.

Similar to the Proposed Action, with proper engineering and design of the No Liebert Substation Alternative transmission poles and substation components in accordance with all applicable seismic standards and the location of the new facilities in areas away from other structures or areas of high human use, the potential for adverse effects to people or structures due to seismic-related activity including fault rupture, ground shaking, ground failure, or landslides is less than significant.

SG-2 Result in substantial soil erosion or the loss of topsoil

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. 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. As noted in Section 3.3-1, the project vicinity has a low potential for erosion.

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.

SG-3 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse

As discussed under the analysis for the Proposed Action, it can be expected that certain unstable geologic conditions would be encountered along the transmission line alignment. Proper engineering of the pole foundations would comply with all applicable design and construction requirements and industry standards related to geologic stability. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. Installation of poles would require a relatively small area of disturbance and it is expected that most foundations would be secured in the underlying geologic layers, thus reducing potential for creating ground failure that could result in geologic hazards to the surrounding area. 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.

SG-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2007), creating substantial risks to life or property

Similar to the Proposed Action, various soil types would be encountered during excavation for installation of the new transmission poles included in the No Liebert Substation Alternative and the substation site. All foundations would be specifically engineered to meet or exceed applicable requirements related to expansive soils or other geologic conditions at the site. Specifications detailed in project geotechnical investigations would be incorporated into the design of the project components. At a depth of up to 30 feet, it is expected that most foundations would be secured in the underlying geologic layers and extend much deeper than the soil layer at the ground surface that might contain expansive soil characteristics, which would minimize adverse effects relative to expansive soils. As described for the Proposed Action, the location of the transmission poles and substations included in the No Liebert Substation Alternative is not in proximity to other structures or to areas occupied or heavily used by humans. For these reasons, any adverse effects resulting from a transmission pole location or substation location on expansive soils would not create a substantial risk to life or property. Proper engineering and distance from other property or human activity would result in a less-than-significant impact related to risks from expansive soils.

SG-5 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

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.

3.3.8 Environmental Effects for the No Action Alternative

3.3.8.1 Direct and Indirect Effects

As no new facilities would be constructed, 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.

3.3.8.2 CEQA Significance Determination

SG-1 Expose people or structures to adverse effects from the rupture of a known fault, strong seismic ground shaking, seismic related ground failure, or landslides

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. Thus, this alternative would not expose people to adverse effects due to seismic related hazards.

SG-2 Result in substantial soil erosion or the loss of topsoil

The No Action Alternative would require no ground disturbance or other activities that would cause erosion or loss of topsoil, thus no impact would result.

SG-3 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse

No new facilities would be constructed and no activities would occur on unstable soil or geologic features. Therefore, the No Action Alternative would not cause unstable geologic conditions or lead to landslides, lateral spreading, subsidence, liquefaction, or collapse.

SG-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2007), creating substantial risks to life or property

No new facilities would be constructed. Thus, the No Action Alternative would not cause risk to life or property due to the location of new structures on expansive soils.

SG-5 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

The No Action Alternative would not require the use of septic tanks or alternative waste water disposal systems. No impact to soils would result.

3.3.9 Mitigation Measures

No mitigation measures are required.

3.3.10 Residual Impacts After Mitigation

The impact to soils and geology would be less than significant.

3.4 VISUAL RESOURCES

This section addresses visual resources and aesthetics issues in the vicinity of the proposed IID transmission line project. A discussion of relevant laws, regulations, and plans is provided to describe the regulatory background for analysis of visual resource issues in the project area. The affected environment section describes existing conditions in terms of views and scenic resources. The impact analysis section describes potential impacts on visual resources from implementation of the Proposed Action and the project alternative transmission line alignments, and also from the No Action Alternative. A discussion of cumulative impacts on visual resources is also provided in Chapter 4.0.

3.4.1 Relevant Laws, Regulations, and Plans

BLM Visual Resource Management System

The BLM's Visual Resource Management (VRM) system provides a way to inventory and evaluate the scenic value of an area's visual resources in order to determine appropriate levels of management (BLM 1986a, b). The VRM provides the methods to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. BLM's VRM system consists of two stages: 1) Visual Resource Inventory (VRI); and 2) analysis using the Visual Resource Contrast Rating process.

Visual Resource Inventory

The visual resources of the BLM El Centro Field Office (FO) were inventoried with the BLM VRI process in 2010. The VRI consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. Based on these factors, BLM-administered lands are placed into one of four VRI classes that represent the relative value of the visual resources; Classes I and II being the most valued, Class III representing a moderate value, and Class IV being of least value. Inventory classes are informational in nature and provide the basis for considering visual values in the development of VRM classes through the resource management planning process.

Scenic quality is a measure of the visual appeal of a tract of land. All public lands have scenic value, but areas with the most variety and most harmonious composition have the greatest scenic value. Public lands are given an A (highest scenic quality), B, or C (lowest scenic quality) rating based on the apparent scenic quality determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The proposed project is on

flat to gently sloping terrain vegetated with creosote that is common to the region, and rated with Class C scenic quality.

Sensitivity levels are a measure of public concern for scenic quality. Public lands are assigned High, Medium, or Low sensitivity levels by analyzing various indicators of public concern. Public lands north of I-80 were inventoried with a Low sensitivity level, indicating that the majority of users have a relatively low level of concern for the scenic quality as viewed from I-80 and the heavily used OHV area. South of I-80, the Yuha Desert was inventoried with a High sensitivity levels because the area is culturally significant on a local level, highly visible from I-80, and contains recreation uses such as camping.

Based on the inventoried scenic quality, sensitivity levels, and the relatively extensive area visible within the foreground-middleground distance zone of up to five miles from I-8 and Evan Hewes Highway, the Yuha Desert Region that includes the proposed project is in VRI Class III.

Visual Resource Management Contrast Rating

The CDCA applies multi-use classifications to lands covered under the plan (see Figure 3.1-1). These classifications are described in Section 3.1, Land Use, which states that the portion of the project area within BLM jurisdiction is Class L Limited Use, which “are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.” (BLM 1980). Utility transmission facilities may be allowed in designated corridors and with compliance with NEPA. The project site is located within Corridor N, which 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 (see Figure 3.1-2). Visual resources management is addressed in the CDCA as one of the resource values for lands designated as ACEC and Special Areas in Chapter 4 of the CDCA. For the Yuha Basin ACEC, prehistoric and historic values and wildlife habitat are the resource values identified. No specific management program for visual resource values for this ACEC is identified in the CDCA.

Visual resource management as addressed in the CDCA provides the following actions to effectively manage activities that involve the alteration of the natural character of the landscape:

1. The appropriate levels of management, protection, and rehabilitation of all public lands in the CDCA will be identified, commensurate with visual resource management objectives in the multiple-use guidelines.

2. Proposed activities will be evaluated to determine the extent of change created in any given landscape and to specify appropriate design or mitigation measures using the BLM's contrast rating process.

The project is within a Class III Visual Resource Area. The objective of Class III is to partially retain the existing character of the landscape. The level of change to the landscape can be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Change should repeat the basic elements found in the natural landscape – form, line, color and texture.

Evaluation of proposed activities to determine the extent of change to the characteristic landscape involves determining whether the potential visual impacts meet the management objectives (VRM class) established for the area, or if design adjustments will be required to meet VRM objectives. A visual contrast rating process is used for this analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. This process is described in BLM Handbook H-8431-1, Visual Resource Contrast Rating (BLM 1986). The contrast rating analysis was performed by developing simulations of the proposed project as viewed from six key observation points (KOPs). VRM classes are only applicable to BLM managed lands, not to State or private lands.

Key Observation Points

Key Observation Points (KOPs) are locations on a travel route or at a use area or a potential use area where the view of a management activity would be most revealing, and include special landscape features, populated areas, historic points, and recreational trails as shown in Figure 3.4-1. Existing conditions photography was collected for each KOP using digital SLR at a 50 mm equivalent. Each KOP is described in the Affected Environment section according to existing viewing conditions, visual quality, visual sensitivity, and viewer exposure.

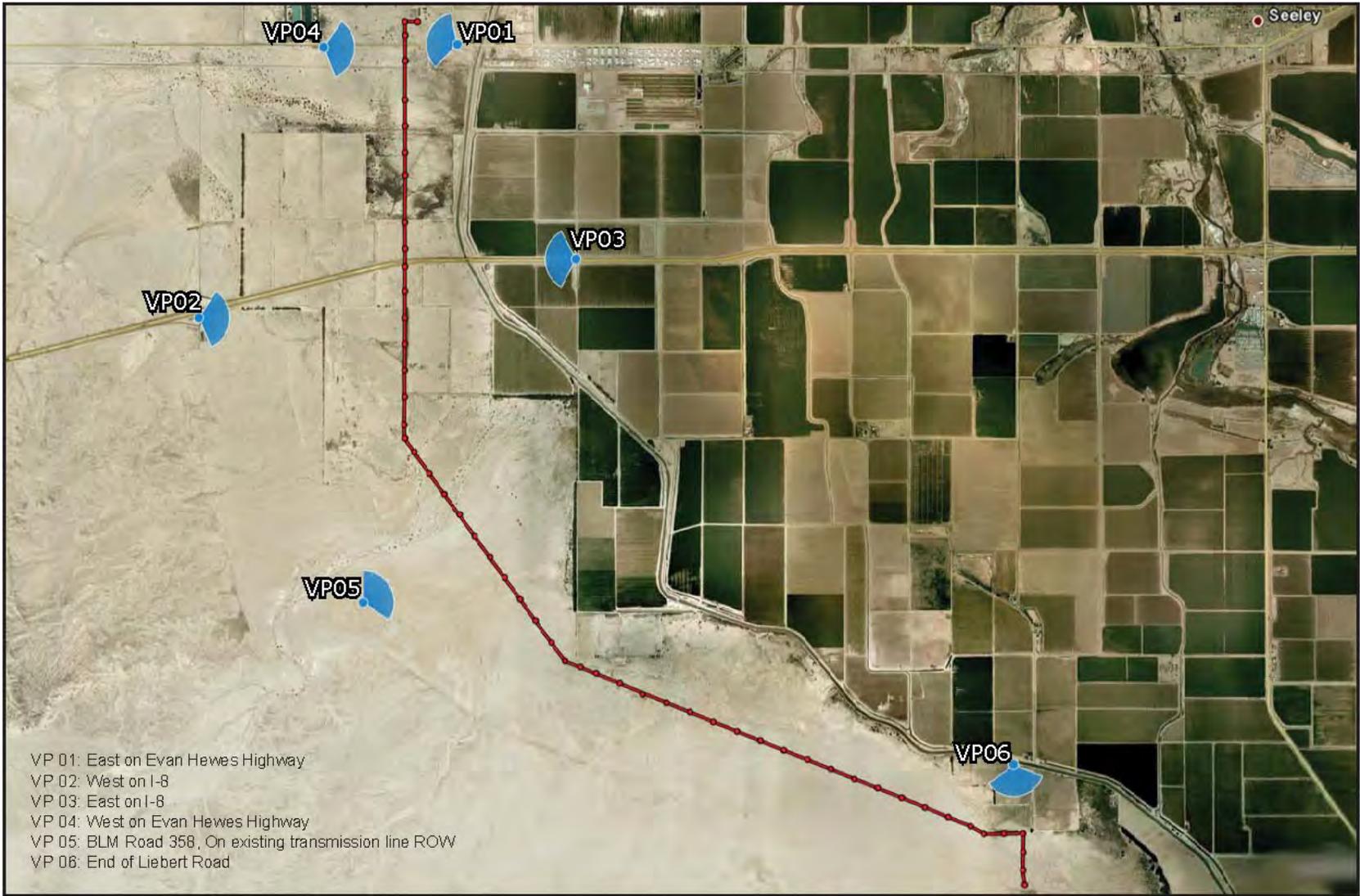


Figure 3.4-1
KOP Locations

California State Scenic Highway Program

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program. According to the Scenic Highways Guidelines, Caltrans “provides guidance and assists local government agencies, community organizations, and citizens with the process to officially designate scenic highways” (Caltrans 2009a). The guidelines describe the scenic highway criteria, the nomination process for designation, and the process for compliance reviews and revocations. A portion of I-8 between the San Diego County line and State Route (SR) 98 is a roadway that is eligible for designation as a State Scenic Highway but not currently designated as such (Caltrans 2009b). This portion of I-8 is a minimum of approximately 14 miles west of the project site.

Imperial County General Plan

The Imperial County General Plan Circulation and Scenic Highways Element (County of Imperial County 2008) contain policies related to scenic highways. In the project area, only the portion of I-8 west of SR-98 is identified as eligible for State Scenic Highway designation. In addition, the following goal and objectives have been developed to address scenic highways in Imperial County.

Goal 4: The County shall make every effort to develop a circulation system that highlights and preserves the environmental and scenic amenities of the area.

Objective 4.1: Establish various systems of scenic recreational travel utilizing multiple transportation modes.

Objective 4.2: Preserve, enhance, and protect Imperial County’s scenic resources by the removal of illicit billboards from scenic areas and restrictions on new off-site sign construction visible from designated scenic highways.

Objective 4.3: Protect areas of outstanding scenic beauty along any scenic highways and protect the aesthetics of those areas.

Objective 4.4: Acquire scenic easements from private owners when required.

Objective 4.5: Develop standards for aesthetically valuable sites. Design review may be required so that structures, facilities, and activities are properly merged with the surrounding environment.

3.4.2 Affected Environment

Methodology

The Visual Resources Management (VRM) system is an inventory of the visual resources located within the Resource Management Plan area that is used by BLM to protect the visual quality and scenic resources of the public lands in accordance with Section 102(a)(8) of the FLPMA. The following visual impact analysis focuses on describing potential impacts on visual resources from implementation of the Proposed Action and the alternatives.

CEQA Significance Criteria

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

- VIS-1** Have a substantial adverse effect on a scenic vista.
- VIS-2** Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.
- VIS-3** Substantially degrade the existing visual character or quality of the site and its surroundings.
- VIS-4** Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Existing Conditions

The project is within a Class III Visual Resource Area. The objective of Class III is to partially retain the existing character of the landscape. The level of change to the landscape can be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Change should repeat the basic elements found in the natural landscape – form, line, color and texture.

With regard to visual resources, I-8 is the primary point of visual access and provides both short-range, mid-range, and distant views of the project area. The other point of visual access to the project area is the BLM operated camping area off Dunaway Road over one mile to the west of the project. The Yuha Basin ACEC is also an area of visual access by off-road recreationists. For

most of its length, the transmission line is located along the edge of an extensive area of agricultural cropland, which provides a backdrop for views to the southeast from I-8, which would also be the view available from the BLM camping area off Dunaway Road. These views from I-8 toward the south portion of the project site are of the Yuha Basin and consist primarily of sparse desert scrub vegetation such as creosote bush. The steel lattice towers of the existing transmission line from Mexico and the IV Substation, which run west along I-8, is prominent in the foreground and mid-range views from I-8. Much of the background view consists of tamarisk woodland planted as a belt of shelter trees along the edges of the agricultural fields. For a more complete description of vegetation communities in the project area, see Section 3.5, Biological Resources. Mount Signal (also known as El Cerro Centinela) and the Sierra de Juarez in Mexico are also visible from I-8 and frame the background view of rugged desert terrain.

Foreground views to the north from I-8 also generally consist of desert scrub and tamarisk. The railroad berm blocks most mid-range views, though the Dixieland Substation and transmission lines are visible above the berm. The Superstition Hills are partially visible to the north of the Dixieland Substation, though most of the area to the north is flat desert land with little topographic relief that continues some 20 miles to the Salton Sea.

Six KOPs were identified in consultation with the BLM to reflect the range of visual conditions and sensitive views that occur in the Yuha Desert between the Imperial Valley Substation and Dixieland Substation. The KOP locations are shown on Figure 3.4-1. The primary existing visual condition factors described for each KOP include: Visual Quality, Viewer Type and Volume of Use, Viewer Exposure, and Overall Visual Sensitivity. Overall Visual Sensitivity takes into account visual quality, viewer type, volume of use, and exposure. Visual sensitivity to changes in a landscape reflects individual as well as local values. There is currently no data for public sensitivity or viewer concern for visual quality in the Imperial Valley. It is assumed for this analysis that viewers with exposures of a long duration, such as viewers at residences, would have the greatest concern for visual resources; as would viewers with expectations for a scenic setting for recreational uses. Other groups of viewers would likely be less sensitive to changes in the visual resources, although this may not be true of individual viewers in a user group.

KOP 1: Northwest on Evan Hewes Highway towards Dixieland Substation

The KOP is located on Evans Hughes Highway in privately owned, producing croplands of the Imperial Valley nearly 1 mile west of the Dixieland Substation.

Summary of Visual Qualities

Visual Quality: Representative. The foreground (up to 0.5 mile from KOP) and middleground (0.5 to 1.5 miles from KOP) distance zones provide a typical broad, expansive view of the variegated green colors of agricultural landscape to the east of the proposed project. Other human development visible in the foreground to middleground views includes linear developments that are characteristic of rural, agricultural landscapes and include a road with a dirt surface and electric distribution lines. Background mountains are the primary scenic feature in view from the KOP, but are located more than 10 miles to the west. The vertical forms and straight lines of the wood poles and the more indistinct horizontal lines of the conductors provide an obvious contrast with the flat, broad horizontal lines of the lines of the desert landscape. The visual quality of BLM lands in the viewshed was inventoried in the VRI as Class C, and the view does not contain any significant scenic vistas, features, or landforms. The landscape is common to the area, contains considerable human modifications, and would absorb additional modifications without changing the rural character of the landscape.

Viewer Type and Volume: The primary viewers at the KOP motorists on the highway, consisting primarily of residents of the general area. The user volume is moderate.

Viewer Concern: In general, residents would have a high level of concern for the existing visual resource; however, the number of residents on local agricultural access roads is low. Agricultural workers focus is on attending to the arable lands.

Viewer Exposure: Viewing Distance Zone: Foreground to background. Viewing Angle and Extent of Visibility: Predominantly normal views. Panoramic and open long views of the existing landscape in foreground to background distance zones are typical. There are no screening features in the landscape. Duration of View: Limited for travelers on the local roads. However, durations would be long for agricultural workers. Overall duration of view is moderate.

Overall Visual Sensitivity Level: Moderate

KOP 2: View to east on I-8 east of proposed ID intersection

The KOP is located on I-8 in the Yuha Desert (BLM land) at the Dunaway Road exit, nearly 2 miles west of the proposed project.

Summary of Visual Qualities

Visual Quality: Representative. The foreground (up to 0.5 mile from the KOP) and middleground (0.5 to 1.5 miles from the KOP) distance zones provide a typical view of the Yuha Desert landscape to the west of the Imperial Valley croplands. Human modifications in the foreground to middleground distance zones include the highway and the overpass at the exit. These features are dominant in the foreground distance zone, as they draw the attention of the view from the foreground to the horizon. The visual quality was inventoried in the BLM VRI as Class C, and there are no significant scenic vistas, features, or landforms. The desert soils and vegetation show evidence of extensive ORV use. The landscape is common to the area, contains considerable human modifications, and would absorb additional modifications without changing the character of the landscape.

Viewer Type and Volume: The primary viewers at the KOP are highway motorists. The user volume is high.

Viewer Concern: Motorists' concern for visual quality would be high in areas of significant scenic, natural beauty; however, concern is lower in areas with existing transmission lines or other human development. The posted speed limit for State highways is generally 65 miles per hour, so that existing features would be within the viewshed of a traveler for only a few minutes. The BLM has inventoried the visual sensitivity of surrounding BLM lands as high, because there are a large number of viewers on I-8 that view a landscape that is culturally significant on a local and regional level. The high visual sensitivity corresponds to a high level of viewer concern.

Viewer Exposure: Viewing Distance Zone: Foreground to background. Viewing Angle and Extent of Visibility: Predominantly normal views. Panoramic and open long views of the existing landscape in foreground to background distance zones are typical. Few screening features in the landscape. Duration of View: Motorists would be at the KOP for a very brief period of time. The duration of view would also be a very brief period of time between the KOP and the IID line. The duration of view is low.

Overall Visual Sensitivity Level: High (see viewer concern)

KOP 3: View to west on I-8 west of proposed ID intersection

The KOP is located on I-8 east Dunaway Road exit, nearly 1.3 miles east of the proposed project.

Summary of Visual Qualities

Visual Quality: Representative. The foreground (up to 0.5 mile from the KOP) and middleground (0.5 to 1.5 miles from the KOP) distance zones provides an expansive view of the variegated green colors of the agricultural landscape to the east of the proposed project. Other human development visible in the foreground to middleground views includes the highway, which extends from the foreground to the horizon as viewed by eastbound travelers. Human modifications in the middleground distance zones include the light colored, block forms of structures to the north, and linear rows of landscaping trees to the south. Background mountains are the primary scenic feature in view from the KOP, but are located more than 10 miles to the west. The visual quality of BLM lands within the viewshed of the KOP was inventoried as Class C, and there are no significant scenic vistas, features, or landforms. The desert soils and vegetation show evidence of extensive ORV use. The landscape is common to the area, contains considerable human modification, and would absorb additional modifications without changing the character of the landscape.

Viewer Type and Volume: The primary viewers at the KOP are highway motorists. The user volume is high.

Viewer Concern: Motorists' concern for visual quality would be high in areas of significant scenic, natural beauty; however, concern is lower in areas with existing transmission lines or other human development. The posted speed limit for State highways is generally 65 miles per hour, so that existing features would be within the viewshed of a traveler for only a few minutes. The existing views include transmission facilities and the transition from desert to agricultural, which includes structures.

Viewer Exposure: Viewing Distance Zone: Foreground to background. Viewing Angle and Extent of Visibility: Predominantly normal views. Panoramic and open long views of the existing landscape in foreground to background distance zones are typical. Few screening features in the landscape. Duration of View: Motorists would be at the KOP for a very brief period of time. The duration of view would be less than half a minute between the KOP and the IID line. The duration of view is low.

Overall Visual Sensitivity Level: Low

KOP 4: View to east from Sun Lakes Community on Evan Hewes Highway towards Dixieland Substation

The KOP is located a few hundred feet east of the entrance to the Sun Lakes gated community located more than 0.5 miles west of the Dixieland Substation on Evan Hewes Highway.

Summary of Visual Qualities

Visual Quality: Representative. The foreground (up to 0.5 mile from KOP) and middleground (0.5 to 1.5 miles from KOP) distance zones provide a typical view of the desert landscape to the east of the proposed project. Other human development visible in the foreground to middleground views includes linear developments that are characteristic of rural, agricultural landscapes and include a road with a dirt surface and an electric transmission line. Views towards the substation from within the community are screened by a row of trees planted along the east boundary of the community. From the viewpoint on the highway near the entrance, the vertical forms and straight lines of the wood poles and the more indistinct horizontal lines of the conductors provide an obvious contrast with the flat, broad horizontal lines of the lines of the desert landscape. The Dixieland Substation is visible as a cluster of vertical, angular lines and forms; however, they are a subdominant feature because of the viewing distance of slightly more than 0.5 miles. The visual quality was inventoried in the BLM VRI as Class C, and the view does not contain any significant scenic vistas, features, or landforms. The landscape is common to the area, contains considerable human modifications, and would absorb additional modifications without changing the rural character of the landscape.

Viewer Type and Volume: The primary viewers are residents of the Sun Lakes community as they enter and exit the community; and eastbound travelers on Evan Hewes Highway. The user volume is moderate, as the majority of drivers on the road are residents.

Viewer Concern: In general, residents at the Sun Lakes community would have a high level of concern for the existing visual resource. In addition, some motorists on the road are residents of the community, and nearby residences along the highway.

Viewer Exposure: Viewing Distance Zone: Foreground to background. Viewing Angle and Extent of Visibility: Predominantly normal views. Panoramic and open long views of the

existing landscape in foreground to background distance zones are typical. Linear landscaped trees that screen the Sun Lakes community from landscape features to the east of the community. There are no other screening features in the landscape. Duration of View: View durations would be long from residential areas.

Overall Visual Sensitivity Level: High

KOP 5: View to east from Shell Beds Campground. BLM Road 358/Transmission line ROW. The BLM road provides access to other BLM routes and recreation opportunities in the Yuha Basin, as well as to the existing transmission line.

Summary of Visual Qualities

Visual Quality: Representative. The KOP provides views to the east of the rugged desert landscape within the Yuha desert south of I-80 that is used for a variety of outdoor recreation activities. The landscape in the foreground distance zone consists of relatively flat terrain vegetated with sparse desert scrub that provides some contrast with the rocky, uneven textures and medium to light tan and gray-tan colors of desert rocks and soils. The landscape setting is predominantly natural and common to the Yuha desert. The visual quality was inventoried in the BLM VRI as Class C, and the view does not contain any significant scenic vistas, features, or landforms. Human modification includes the existing transmission line, which dominates foreground views. The landscape would absorb additional modifications without changing the predominant natural character of the landscape.

The visual quality of the landscape is high, as the landforms exhibit considerable variety in scale and form, adding interest to views from the KOP.

Viewer Type and Volume: The primary viewers at the KOP are campers. Because the campground is easily accessible to from I-80, and provides access to nearby opportunities such as designated OHV routes and the historic trail; visitor use is moderate to high, and occurs primarily during weekends and holidays.

Viewer Concern: Recreationists typically have a high level of concern for the existing visual resource.

Viewer Exposure: Viewing Distance Zone: Foreground to background. Viewing Angle and Extent of Visibility: Predominantly normal views. Panoramic and open, long views of the

existing landscape in foreground to background distance zones are typical. There are no screening features in the foreground and middleground zones of the landscape to the east. **Duration of View:** Duration of view would be range from hours to days, and is considered to be high.

Overall Visual Sensitivity Level: High The BLM inventory provides a rating of high for visual sensitivity.

KOP 6: South end of Liebert Road. View to south towards Imperial Valley Substation.

The KOP is located at the south end of Liebert Road, which provides access to croplands and scattered residences south of I-8.

Summary of Visual Qualities

Visual Quality: Representative. The KOP provides a view of croplands in the foreground distance zone, and the Yuha Desert in the middleground and background distance zones to the south and west of existing agricultural uses. A residence is also located at the KOP. The existing Imperial Valley Substation is located about 0.75 miles south of the KOP. The foreground (up to 0.5 mile from KOP) and middleground (0.5 to 1.5 miles from KOP) distance zones provide a typical broad, expansive view of the variegated green colors of agricultural landscape to the east of the proposed project. Other human development visible in the foreground to middleground views includes linear developments that are characteristic of rural, agricultural landscapes and include a road with a dirt surface and electric distribution lines. The vertical, angular lines and forms of the Imperial Valley Substation are visible, but difficult to discern in the landscape, because at the distance of 0.75 miles the lines, forms and complex internal texture of the substation become indistinct, and are small in scale relative to the surrounding landscape. Background mountains are the primary scenic feature in view from the KOP, but are located more than 10 miles to the west. The visual quality of BLM lands in the KOP viewshed was inventoried as Class C, and the view does not contain any significant scenic vistas, features, or landforms. The landscape is common to the area, contains considerable human modifications, and would absorb additional modifications without changing the rural character of the landscape.

Viewer Type and Volume: The primary viewers at the KOP are residents and agricultural workers. Public use of the road is low, as only one residence is located in the vicinity of the

KOP. The road ends at Mandrapa Road, and does not access areas that are generally visited by the public. Public use of the road is low.

Viewer Concern: The concern for scenic quality is high for residents. Agricultural workers focus is on attending to the arable lands. The overall viewer concern is moderate.

Viewer Exposure: Viewing Distance Zone: Foreground to background. Viewing Angle and Extent of Visibility: Predominantly normal views. Panoramic and open long views of the existing landscape in foreground to background distance zones are typical. There are no screening features in the landscape. Duration of View: View durations would be long from the single residence and for agricultural workers.

Overall Visual Sensitivity Level: Moderate

3.4.3 Environmental Effects for the Proposed Action

3.4.3.1 Direct and Indirect Effects

Direct effects to visual resources occur as a result of the disturbance of the landscape by project activities and the addition to the landscape of proposed facilities. Direct effects can be short- or long-term. Indirect effects caused by the proposed project occur later in time or farther removed in distance, and would likely involve indirect changes in the local economy from adverse effects of facilities viewed from recreation areas or other sensitive viewpoints. No indirect, adverse effects were identified for the Proposed Action.

Short-term effects result from temporary disturbances, such as construction, installation, and decommissioning activities. Long-term effects result from the addition of permanent structures to the landscape and from operation of facilities. Facilities that would contribute to long-term effects include 230-kV transmission line, substation expansion facilities, and associated access roads and ancillary facilities. Effects from long-term disturbance would occur for the duration of the operation phase of the Proposed Action.

The Proposed Action would involve placement of new transmission line poles and installation of transmission lines in an area primarily consisting of open desert and fallow agricultural land. 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. In addition, the open character of the area, which will continue to offer 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.

Additionally, only the portion of I-8 between the San Diego County line and SR-98 within the project area is classified as eligible for designation as a State Scenic Highway and is a minimum of approximately 14 miles west of the project site.

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. 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.

The proposed single-pole steel structure repeats the linear, vertical form of existing lattice structures; however, the bold vertical form of the single pole can be slightly stronger than the impact of a lattice structure, because the single-pole structure lacks the screening effect of a back-dropping landscape visible through the lattice structure.

The visual contrast of the Proposed Action with the existing landscape on BLM lands was evaluated for six KOP locations, which were selected to be representative of views seen from roadways, residential areas, and recreation sites. The contrast of the Proposed Action with the existing landscape is depicted in the simulated appearance of the Proposed Action in Figures 3.4-2 to 3.4-7.

Under VRM Class III, the level of change to the landscape from management activities can be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. The Proposed Action would meet the BLM's objectives for the management of visual resources in VRM Class III areas, as concluded in the contrast rating analysis for each KOP, as described below. There would be no significant impact because the Proposed Action would be compatible with the designated VRM Class III objective.



VP01: East on Evan Hewes Highway



Figure 3.4-2
Existing View and Simulation from KOP 1



VP 02: West on I-8



Figure 3.4-3
Existing View and Simulation from KOP 2



VP 03: East on I-8



Figure 3.4-4
Existing View and Simulation from KOP 3



VP 04: West on Evan Hewes Highway



Figure 3.4-5
Existing View and Simulation from KOP 4



VP 05: BLM Road 358, On existing transmission line ROW



Figure 3.4-6
Existing View and Simulation from KOP 5



VP 06: End of Liebert Road



Figure 3.4-7
Existing View and Simulation from KOP 6

Irreversible commitments are permanent or essentially permanent resource uses or losses; they cannot be reversed, except in the extreme long term. An irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time. Until areas affected by the Proposed Action are reclaimed following decommissioning of the project, the reduction in visual quality immediately following installation of the proposed project would be an irretrievable loss. However, upon completion of the decommissioning, transmission line and substation facilities and access roads would be removed and the disturbed areas associated with the project reclaimed, therefore no irreversible commitment of visual resources is anticipated.

The relationship between local short-term uses and long-term productivity does not apply to visual resources; however, the effects to visual resources in the visual resource analysis area do affect short-term uses and long-term productivity for recreation uses.

Key Observation Points

The appearance of Proposed Action from the six KOPs is depicted in computer-generated visual simulations, as shown in Figures 3.4-2 to 3.4-7.

KOP 1: Simulation of Proposed Action from Evan Hewes Highway east of Dixieland Substation (Figure 3.4-2)

The portion of the Proposed Action that is within the viewshed of KOP 1 is the 230-kV transmission line and the Dixieland Substation expansion. The centerline of the proposed transmission line would be located slightly more than one mile west. At this distance, the single-pole steel structures would be visible to the casual observer, but would be very small in scale relative to the surrounding landscape. The new structures would repeat line and form contrasts of the existing nearby transmission and distribution pole structures, and would not change the character of the landscape. The expansion facilities at the Dixieland Substation would be visible as a cluster of vertical, angular lines and forms; however, at the distance of more than one mile, they would not appear noticeably different from the existing Dixieland Substation. Night-lighting at the expansion facilities would be visible at the 0.5 mile distance; however, any visible lighting would not appear noticeably different from the existing Dixieland Substation night-lighting. Based on the low degree of change in line, form, color, and texture of the proposed transmission line and expanded substation facilities with the characteristic landscape, the visual contrast of the Proposed Action as seen from KOP 1 is weak. In addition, the Proposed Action would not block

views of any scenic landscapes. The overall visual change is low, and would not dominate the view of the casual observer.

KOP 2: Simulation of Proposed Action from eastbound I-8 looking east towards Proposed Action (Figure 3.4-3)

The 230-kV line under the Proposed Action would be located slightly more than two miles east of the KOP. At this distance, the single-pole steel structures would be very small in scale relative to the surrounding landscape and would be difficult to discern in the landscape by the casual observer. Based on the very low degree of change in line, form, color, and texture of the proposed transmission line with the characteristic landscape, the visual contrast of the Proposed Action as seen from KOP 2 is weak. In addition, the Proposed Action would not block views of any scenic landscapes. The Proposed Action would be within the moving viewshed, including the foreground distance zone of up to 0.5 miles, of eastbound motorists for a brief period of time before the motorist moves beyond the proposed facilities. The overall visual change is low, and would not dominate the view of the casual observer.

KOP 3: Simulation of Proposed Action from westbound I-8 looking west towards Proposed Action (Figure 3.4-4)

The 230-kV line under the Proposed Action would be located slightly more than 1.5 miles west of the KOP. At this distance, the single-pole steel structures would be very small in scale relative to the surrounding landscape and would be difficult to discern in the landscape by the casual observer. Based on the low degree of change in line, form, color, and texture of the proposed transmission line with the characteristic landscape, the visual contrast of the Proposed Action as seen from KOP 3 is weak. In addition, the Proposed Action would not block views of any scenic landscapes. The Proposed Action would be within the moving viewshed, including the foreground distance zone of up to 0.5 miles, of eastbound motorists for a brief period of time. The overall visual change is low, and would not dominate the view of the casual observer.

KOP D: Simulation of Proposed Action from Sun Lakes Community on Evan Hewes Highway (Figure 3.4-5)

The portion of the Proposed Action that is within the viewshed of KOP 4 is the 230-kV transmission line and the Dixieland Substation expansion. The Proposed Action would not be visible from residences within the community, because trees planted along the east boundary of the community are tall and dense enough to screen views of the proposed transmission line and

substation expansion facilities. The centerline of the proposed transmission line would be located slightly more than 0.5 east of the entrance driveway into Sun Lakes. At this distance, the single-pole steel structures would be visible to the casual observer on the highway near the entrance to the community, but small in scale relative to the surrounding landscape, and would not attract attention. The expansion facilities at the Dixieland Substation would be visible as a cluster of vertical, angular lines and forms; however, at the distance of more than 0.5 mile, they would not appear noticeably different from the existing Dixieland Substation. Night-lighting at the expansion facilities would be visible at the 0.5 mile distance; however, any visible lighting would not appear noticeably different from the existing Dixieland Substation night-lighting. Based on the low to moderate degree of change in line, form, color, and texture of the proposed transmission line and expanded substation facilities with the characteristic landscape, the visual contrast of the Proposed Action as seen from KOP 4 is weak, as the Proposed Action would create line, form, and color contrast very similar to existing facilities. In addition, the Proposed Action would not block views of any scenic landscapes. The overall visual change is low, and would not dominate the view of the casual observer.

KOP 5: View to east from BLM Road 358/Transmission line ROW of Proposed Action (Figure 3.4-6)

The portion of the Proposed Action that is within the viewshed of KOP 5 is the 230-kV transmission line and the Liebert Substation. The centerline of the proposed transmission line would be located approximately 0.8 miles to the east. At this distance, the single-pole steel structures would be visible to the casual observer, but small in scale relative to the surrounding landscape and the existing transmission structures. The new steel structures would repeat the form, line, and color contrasts of the existing transmission line structures, and would not change the predominantly natural character of the landscape. The proposed Liebert Substation would be located slightly more than four miles east-southeast of the KOP, and would be too distant to be visible. Night-lighting at the Liebert Substation would be visible at the four mile distance; however, any visible lighting would not appear noticeably different from the existing IV Substation night-lighting. Based on the low degree of change in line, form, color, and texture of the proposed transmission line and expanded substation facilities with the characteristic landscape, the visual contrast of the Proposed Action as seen from KOP 5 is weak. In addition, the Proposed Action would not block views of any scenic landscapes. The overall visual change is low, and would not dominate the view of the casual observer.

KOP 6: South end of Liebert Road. View to south of Proposed Action (Figure 3.4-7)

The KOP provides a view of the proposed Liebert Substation, which is north of the existing IV Substation; and the 230-kV transmission line extending north and northeast of the substation. The 230-kV line would be about 0.45 miles south of the KOP. The single-pole steel structures would repeat existing vertical forms and straight lines of existing, larger single-pole transmission structures and IV Substation facilities located in the direct view from the KOP behind the proposed structures. Similarly, the proposed Liebert Substation would be very similar in appearance to the larger IV Substation that is located directly south of the proposed site. The facilities under the Proposed Action would be very similar in appearance at a slightly larger scale within the landscape, because they are slightly closer in distance to the KOP, and would not change the overall character of the landscape. In addition, the Proposed Action would not block views of any scenic landscapes. The overall visual change is low, and would not dominate the view of the casual observer to a greater degree than the existing facilities.

3.4.3.2 CEQA Significance Determination

VIS-1 Have a substantial adverse effect on a scenic vista.

As discussed above, 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. Therefore, the impact of the Proposed Action on a scenic vista would be less than significant.

VIS-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

In the project area, 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.

VIS-3 Substantially degrade the existing visual character or quality of the site and its surroundings

As described above, the Proposed Action would be located in an area consisting primarily of open desert and fallow agricultural land. While scenic views are 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 does not represent an intact area of natural scenic beauty. Therefore, the impact of the Proposed Action on the existing visual character or quality of the site would be less than significant.

VIS-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

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. 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. Therefore, impacts from lighting or glare would be less than significant.

3.4.4 Environmental Effects for Route Alternative 1

3.4.4.1 Direct and Indirect Effects

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. 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. Route Alternative 1 transmission line would not require lighting and only the proposed Liebert Substation would require security lighting. As with the Proposed Action, all lighting at the substation would be shielded and directed downward and construction activities would only occur during daylight hours.

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 Route Alternative 1 would be very similar to the effects from the Proposed Action. As such, the impacts from Route Alternative 1 would be less than significant, and would be compatible with the BLM VRM objectives for Class III. As such, Route Alternative 1 would not result in direct or indirect adverse effects to visual resources.

3.4.4.2 CEQA Significance Determination

VIS-1 Have a substantial adverse effect on a scenic vista.

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 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 Route Alternative 1 on a scenic vista would be less than significant.

VIS-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

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 Route Alternative 1.

VIS-3 Substantially degrade the existing visual character or quality of the site and its surroundings

As described above, Route Alternative 1 transmission line would be located in an area consisting primarily of open desert and fallow agricultural land. 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 Route Alternative 1 on existing visual character or quality of the site would be less than significant.

VIS-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

As with the Proposed Action, Route Alternative 1 transmission line would not require lighting with only the proposed Liebert Substation requiring security lighting. All lighting at the substation would be shielded and directed downward and construction activities would only occur during daylight hours. Therefore, the impacts of Route Alternative 1 from lighting or glare would be less than significant.

3.4.5 Environmental Effects for Route Alternative 2

3.4.5.1 Direct and Indirect Effects

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 have less of an impact on views of open desert and would primarily impact mid-range views of agricultural lands. The additional pole structures in the portion of the alignment that would be adjacent to the canal and would increase visibility of the pole structures. Views of the Route Alternative 2 alignment 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. Additionally, 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. As with the Proposed Action, the Route Alternative 2 transmission line would not require lighting and only the proposed Liebert Substation would require security lighting. As with the Proposed Action, all lighting at the substation would be shielded and directed downward and construction activities would only occur during daylight hours.

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 Route Alternative 2 would be very similar to the effects from the Proposed Action. As such, the impacts from Route Alternative 2 would be less than significant, and would be compatible with the BLM VRM objectives for Class III. As such, Route Alternative 2 would not result in direct or indirect adverse effects to visual resources.

3.4.5.2 CEQA Significance Determination

VIS-1 Have a substantial adverse effect on a scenic vista.

As with the Proposed Action, Route Alternative 2 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. The additional pole structures in the portion of the alignment that would be adjacent to the canal and would increase visibility of the pole structures. Views of the Route Alternative 2 alignment 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 Route Alternative 2 on a scenic vista would be less than significant.

VIS-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

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 Route Alternative 2.

VIS-3 Substantially degrade the existing visual character or quality of the site and its surroundings

As described above, the Route Alternative 2 transmission line 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 Route Alternative 2 on existing visual character or quality of the site would be less than significant.

VIS-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

As discussed above, the Route Alternative 2 transmission line would not require lighting. Only the proposed Liebert Substation would require security lighting which would be shielded and

directed downward. Construction activities would only occur during daylight hours. Therefore, impacts of Route Alternative 2 from lighting or glare would be less than significant.

3.4.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.4.6.1 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.

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 Reduced Liebert Substation Alternative would be very similar to the effects from the Proposed Action. As such, the impacts from the Reduced Liebert Substation Alternative would be less than significant, and would be compatible with the BLM VRM objectives for Class III. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to visual resources.

3.4.6.2 CEQA Significance Determination

VIS-1 Have a substantial adverse effect on a scenic vista.

As described above, the Reduced 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. The additional pole structures in the portion of the alignment that would be adjacent to the canal and would increase visibility of the pole structures. Views of the Reduced Liebert Substation Alternative alignment 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 Reduced Liebert Substation Alternative on a scenic vista would be less than significant.

VIS-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

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 Reduced Liebert Substation Alternative.

VIS-3 Substantially degrade the existing visual character or quality of the site and its surroundings

As with the Proposed Action, the Reduced 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 Reduced Liebert Substation Alternative on existing visual character or quality of the site would be less than significant.

VIS-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

Similar to the Proposed Action, the Reduced Liebert Substation Alternative's transmission line would not require lighting. Only the proposed Liebert Substation would require security lighting which would be shielded and directed downward. Construction activities would only occur during daylight hours. Therefore, impacts of the Reduced Liebert Substation Alternative from lighting or glare would be less than significant.

3.4.7 Environmental Effects for the No Liebert Substation Alternative

3.4.7.1 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.

3.4.7.2 CEQA Significance Determination

VIS-1 Have a substantial adverse effect on a scenic vista.

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. The additional pole structures in the portion of the alignment that would be adjacent to the canal and would increase visibility of the pole structures. Views of the No Liebert Substation Alternative alignment 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 a scenic vista would be less than significant.

VIS-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

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.

VIS-3 Substantially degrade the existing visual character or quality of the site and its surroundings

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.

VIS-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

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.

3.4.8 Environmental Effects for the No Action Alternative

3.4.8.1 Direct and Indirect Effects

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

3.4.8.2 CEQA Significance Determination

VIS-1 Have a substantial adverse effect on a scenic vista.

There would be no construction of new transmission lines or substation improvements under the No Action Alternative. For this reason, there would be no impacts on scenic vistas in the project area.

VIS-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. In addition, no State Scenic Highway exists within the project area. For these reasons, the No Action Alternative would have no impacts on scenic resources within a State Scenic Highway.

VIS-3 Substantially degrade the existing visual character or quality of the site and its surroundings

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements and no change to the visual character or quality of the site and its surroundings. For these reasons, there would be no impacts under the No Action Alternative.

VIS-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements and no changes to light or glare issues for the site and its surroundings. For these reasons, there would be no impacts under the No Action Alternative.

3.4.9 Mitigation Measures

No mitigation measures are required.

3.4.10 Residual Impacts After Mitigation

The impact to visual resources would be less than significant.

3.5 BIOLOGICAL RESOURCES

This section describes biological resources in the project vicinity and potential impacts to those resources from implementation of the Proposed Action, Route Alternative 1, Route Alternative 2, the Reduced Liebert Substation Alternative, the No Liebert Substation Alternative, and No Action Alternative. Also provided is a listing of relevant laws, regulations, and plans that apply to biological resources. Information in this section summarizes the information provided in the Biological Resources Technical Report included as Appendix E.

3.5.1 Relevant Laws, Regulations, and Plans

The Proposed Action will be implemented in compliance with applicable Federal, State, and local requirements. Table 3.5-1 summarizes these requirements.

**Table 3.5-1
Relevant Laws, Regulations, and Plans**

Law, Regulation, or Policy	Applicability
Federal	
Endangered Species Act of 1973 and implementing regulations, 16 USC Section 1531 et seq., 50 CFR Section 17.1 et seq., FR75 N 40 9377	Designates and protects federally threatened and endangered plants and animals and their critical habitats. FTHL is a species proposed for listing as threatened.
The Bald and Golden Eagle Protection Act of 1940 (16U.S.C. 668-668c)	Prohibits the “taking” of any bald or golden eagle including their parts, nests, or eggs without a Federal permit. This includes prohibiting the disturbance of eagles.
Migratory Bird Treaty Act 16 USC Sections 703-711	Prohibits take of protected migratory birds.
Section 404 of the Clean Water Act (33 CFR Part 320-331)	Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material into waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE).
Executive Order (EO) 11990, Protection of Wetlands (EO 11990, 1977)	Executive Order (EO) 11990 requires that when a construction project involves wetlands, a finding must be made by the Federal agency that there is no practicable alternative to such construction, and that the Proposed Action included all practicable measures to minimize impacts on wetlands resulting from such use.
U.S. Department of the Interior Bureau of Land Management, The California Desert Conservation Area Plan, as amended, California Desert District, Riverside, California, August 17, 1999, 1980	Project is located within the Yuha Basin Area of Critical Environmental Concern (ACEC).
U.S. Department of the Interior Bureau of Land Management (BLM), Yuha Desert Management Plan, California Desert District, El Centro Resource Area, March 1985	The Yuha Basin ACEC was specifically designed to protect the flat-tailed horned lizard.

Law, Regulation, or Policy	Applicability
U.S. Department of the Interior Bureau of Land Management, Yuha Basin ACEC Management Plan, California Desert District, 1981	Gives additional protection to unique wildlife and cultural resources within portions of the Yuha Basin.
Flat-tailed Horned Lizard Rangewide Management Strategy 2003 Revision	The project is located within the boundaries and adjacent to lands designated as the Yuha Desert Management Area for the flat-tailed horned lizard.
State	
California Endangered Species Act of 1984, Fish and Game Code (FGC) Section 2050 et seq.	Protects California’s endangered and threatened species, including species designated as candidates for listing.
Fully Protected Species, FGC Section 3511: Fully protected birds; FGC Section 4700: Fully protected mammals; FGC Section 5050: Fully protected reptiles and amphibians; FGC Section 5515: Fully protected fishes	Prohibit the “taking” of listed plants and animals that are classified as “Fully Protected” in California.
FGC Section 3503, Section 3503.5, and Section 3513	Provides protection for the nests and eggs of all birds, and protects raptors (birds of prey) and nongame migratory birds. Provides protection for the burrowing owl from take.
Title 14 CCR Section 460	Provides specific information regarding protection and take of fur-bearing animals in California.
Native Plant Protection Act of 1977, FGC Section 1900 et seq.	Provides specific protection measures for identified populations of State rare and endangered plants.
California Desert Native Plants Act of 1983 FGC 1925	Prohibits the commercial harvesting of desert native plants except under specific permits.
Streambed Alteration Agreement, FGC Section 1600 et seq.	Requires California Department of Fish and Game to review project impacts to “waters of the State” (bed, banks, channel, or associated riparian areas of a river, stream, or lake), including impacts to wildlife and vegetation from sediments, diversions, and other disturbances.
Local	
Imperial Valley Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) 2006 (Planning Agreement not yet finalized)	The project is located within the boundaries of the Imperial Valley NCCP/HCP and is subject to the guidelines provided once they are finalized.
Imperial County General Plan, Conservation and Open Space Element 2003 Revision	The project is located within the boundaries of the Imperial County General Plan and is subject to guidelines within the Conservation and Open Space Element.

3.5.2 Affected Environment

Methodology

A habitat assessment was conducted on June 9, 2009, by qualified biologists to assess the type and quality of biological communities present in the vicinity of the project site. Per this habitat assessment, habitat potentially suitable for the burrowing owl (*Athene cunicularia*; BUOW) and -tailed horned lizard (*Phrynosoma mcallii*; FTHL) was found to occur along segments of the Proposed Action, Route Alternative 1, and Route Alternative 2. Based on the habitat present, focused surveys were later conducted for BUOW and the FTHL. The BUOW is considered a species of special concern by the California Department of Fish and Game (CDFG) due to intensive development pressure Statewide on the species' habitat; it is also a BLM sensitive species. The FTHL is a CDFG species of special concern and BLM sensitive species (CDFG 2009). The FTHL was recently determined to not need the added protection of the ESA. On March 14th, 2011 the USFWS Service announced that the threats to the flat-tailed horned lizard were not as significant as previously believed. This finding was in part due to the work of the BLM, ICC and the preservation of the FTHL Management Areas.

Based on direction provided by BLM and due primarily to the proposed alternatives in active agricultural lands, surveys were conducted for mountain plover (*Charadrius montanus*; MOPL) during the winter of 2011 using guidelines supplied by the USFWS in 2011. The MOPL is a CDFG species of special concern and BLM sensitive species (CDFG 2009). The USFWS memorandum dated June 09, 2011 stated that Section 7 conference on this species is no longer applicable by reference to the May 12, 2011 Federal Register notice of withdrawal of Proposed Rule to List the Mountain Plover as a threatened species. Additional information was provided by the BLM concerning the southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL), including data from a RECON Environmental Inc., focused survey for SWFL conducted for the Imperial Solar Energy Center (ISEC) west project that is located to the west of the IID 230 kV transmission line (RECON 2010). The SWFL subspecies is listed as Endangered under the Endangered Species Act (ESA) (USFWS 2005). The entire willow flycatcher species complex (which includes SWFL) is considered by CDFG as a listed endangered species (CDFG 2010a).

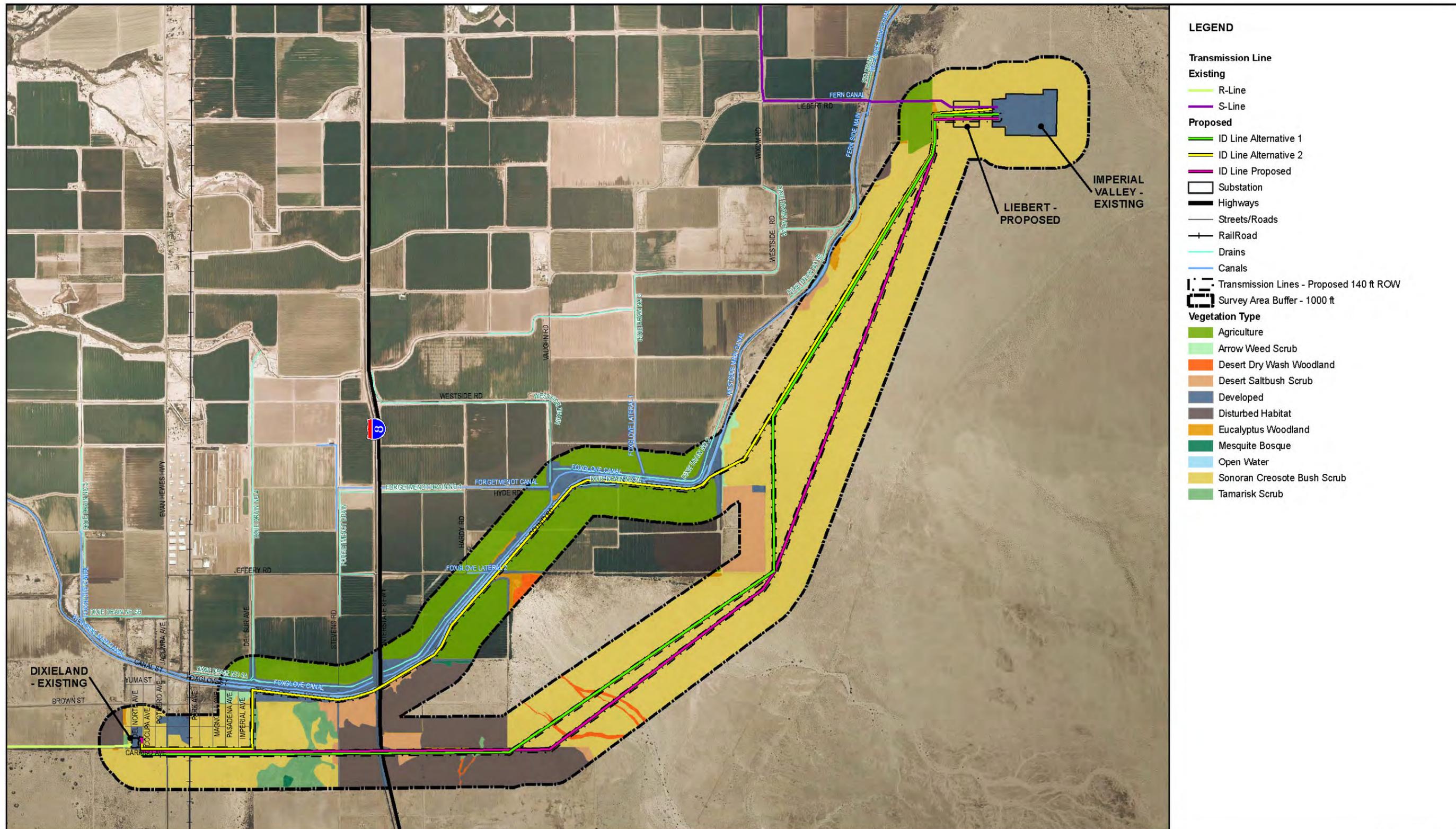
Vegetation communities were mapped on June 23 and 24 2009, and are displayed in Figure 3.5-1. Rare plant surveys were conducted March 31, and April 1, 5, and 19 by AECOM botanists.

The SWFL subspecies is listed as Endangered under the Endangered Species Act (ESA) (USFWS 2005). The entire willow flycatcher species complex (which includes SWFL) is considered by CDFG as a listed endangered species (CDFG 2010a). The following sections describe the results of biological surveys for vegetation and rare plants, BUOW, FTHL, and MOPL.

CEQA Significance Criteria

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

- BIO-1** 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).
- BIO-2** 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.
- BIO-3** 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.
- BIO-4** 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.
- BIO-5** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- BIO-6** Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.



- LEGEND**
- Transmission Line**
- Existing**
- R-Line
 - S-Line
- Proposed**
- ID Line Alternative 1
 - ID Line Alternative 2
 - ID Line Proposed
- Substation
 - Highways
 - Streets/Roads
 - Rail Road
 - Drains
 - Canals
 - Transmission Lines - Proposed 140 ft ROW
 - Survey Area Buffer - 1000 ft
- Vegetation Type**
- Agriculture
 - Arrow Weed Scrub
 - Desert Dry Wash Woodland
 - Desert Saltbush Scrub
 - Developed
 - Disturbed Habitat
 - Eucalyptus Woodland
 - Mesquite Bosque
 - Open Water
 - Sonoran Creosote Bush Scrub
 - Tamarisk Scrub

Source: Imperial Irrigation District 2009; NAIP 2006



Figure 3.5-1

Vegetation Communities

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NEPA Indicators

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:* Night migrating birds and those navigating in strong desert winds may collide with structures that were formerly not on the landscape or are in regular flight corridors. Additionally, birds perching on transmission poles and wires are in danger of electrocution.

Temporary, indirect impacts may arise from construction-related noise levels; construction-generated fugitive dust accumulation on surrounding vegetation; construction-related erosion, runoff, and sedimentation into plant communities; and construction-related unauthorized trespass by construction workers and their vehicles resulting in trampling and destruction of plant communities and species. Indirect impacts from these construction-related activities would be temporary, as these impacts would end with cessation of project construction.

Permanent, indirect impacts to adjacent habitat could arise from increased human use of the area and the potential for long-term unauthorized trespass, nighttime lighting that may increase predation, and the increase in exotic species invasion. Specifically, construction activities could promote spread of exotics by creating disturbed areas that could result in the spread of these exotics into adjacent undisturbed areas, and ongoing potential erosion, runoff, and sedimentation into riparian areas.

Existing Conditions

Vegetation Communities and Plant Species

The project would be implemented within a variety of vegetation communities: agriculture, arrow weed scrub, desert dry wash woodland, desert saltbush scrub, developed, disturbed habitat, eucalyptus woodland, mesquite bosque, open water, Sonoran creosote bush scrub, and tamarisk scrub (Figure 3.5-1). A complete list of plant species detected within the project site is included in the Biological Resources Technical Report included as Appendix E.

Sonoran creosote bush scrub is the most dominant native habitat type in the project area. The single dominant plant for this habitat type is creosote bush (*Larrea tridentata*). Additional plant species that occur include burro-weed (*Ambrosia dumosa*), Mormon tea (*Ephedra trifurca*), dot-seed plantain (*Plantago ovata*), and dune evening-primrose (*Oenothera deltoides*). In some areas, Sonoran creosote bush scrub is intergraded into wetland-associated plant communities with honey mesquite (*Prosopis glandulosa* var. *torreyana*), four-wing saltbush (*Atriplex canescens*), and tamarisk (*Tamarix* spp.) (Table 3.5-2).

Agriculture fields dominate the eastern portions of the project area and are the most common nonnative habitat type. Alfalfa, sorghum, and corn were the most common crops being grown at the time of habitat mapping.

**Table 3.5-2
Survey Area of Existing Vegetation Communities and Cover Types (Acres)**

Vegetation Communities and Other Cover Types	Proposed Alternative	Route Alternative 1	Route Alternative 2	Reduced Liebert Substation Alternative	No Liebert Substation Alternative
<i>Riparian</i>					
Arrow Weed Scrub	0	0	16.11	0	0
Desert Dry Wash Woodland	16.58	13.75	6.12	16.58	16.58
<i>Upland</i>					
Desert Saltbush Scrub	47.08	75.98	47.47	47.08	47.08
Mesquite Bosque	1.66	1.97	2.46	1.66	1.66
Sonoran Creosote Bush Scrub	1,543.92	1,542.30	1,033.73	1,543.92	1,543.92
Tamarisk Scrub	55.29	56.67	29.52	55.29	55.29
Tamarisk Woodland	9.42	13.57	20.73	9.42	9.42
<i>Other Cover Types</i>					
Agriculture*	35.74	36.90	477.07	35.74	35.74
Developed	81.82	83.16	260.15	81.82	81.82
Disturbed Habitat	271.86	253.67	76.67	271.86	271.86
Open water	0	0	53.56	0	0
Total	2,063.37	2,077.97	2,023.59	2,063.37	2,063.37

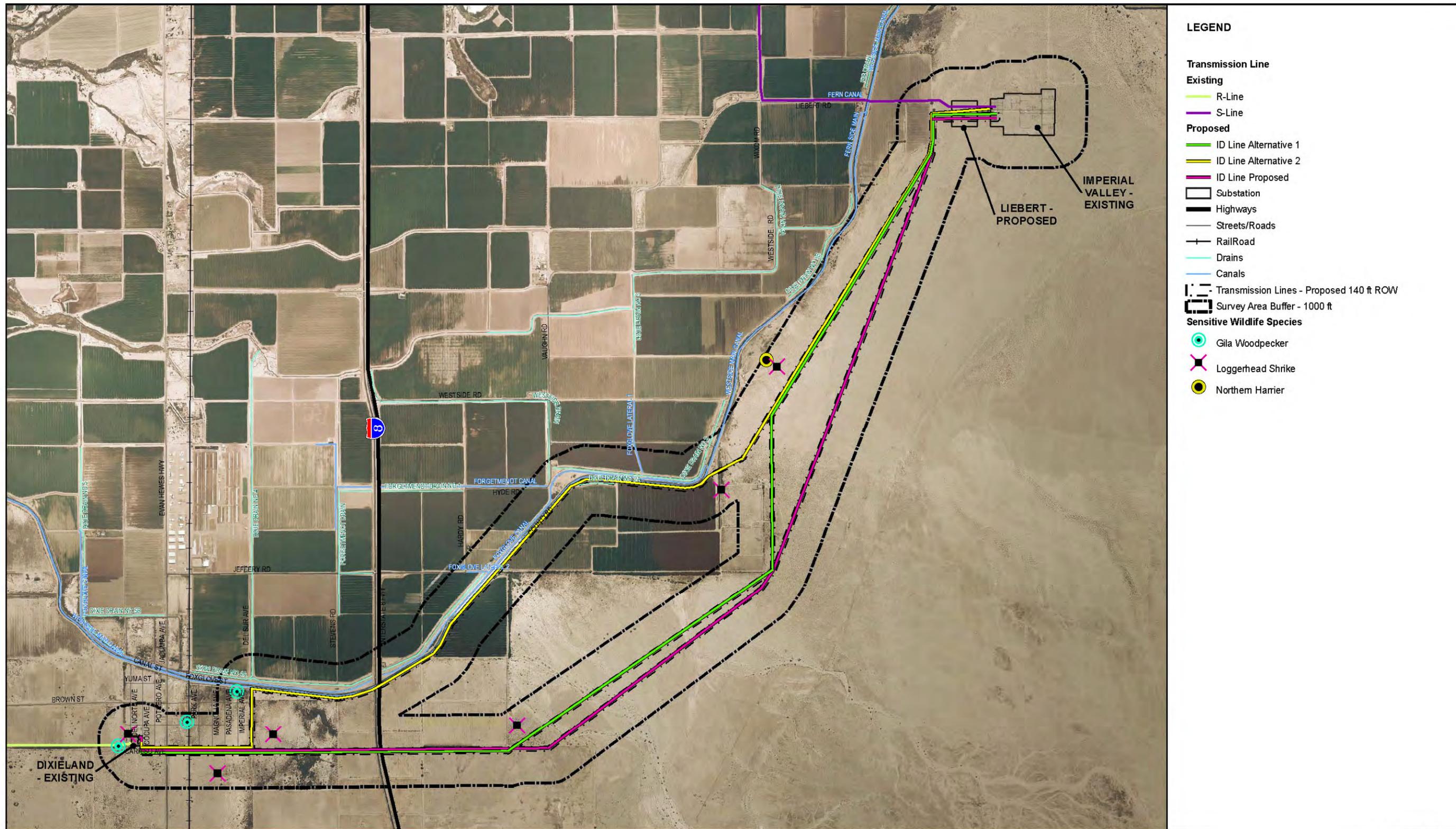
*Refers to fallowed agricultural lands, not active agriculture

Acres of the vegetation communities within the proposed alignments are presented below.

Sensitive Vegetation Communities and Special-Status Plants

Sensitive vegetation communities associated with wetland features such as arrow weed scrub, desert dry wash woodland, mesquite bosque, and tamarisk scrub were detected primarily in the northern and eastern portions of the project area.

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 (CNPS 2011). Thurber’s pilostyles (*Pilostyles thurberi*) and ribbed cryptantha (*Cryptantha costata*); their locations are depicted on Figure 3.5-2.



Source: Imperial Irrigation District 2009, NAIP 2006



Figure 3.5-2

Sensitive Wildlife Species Detected

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

Path: F:\2009\09080060\11D\230kV\6.0\GIS\6.3\Layout\REPORT_Maps_ALL\MND_BA\Fig 3.5-2_SensitiveWildlifeSpecies.mxd, 12/21/09, ShahS2

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Thurber's pilostyles (*Pilostyles thurberi*) a parasitic plant was detected on indigo bush (*Psoralea emoryi*) at two locations within the Biological Resources Survey Area (BRSA). One of these sites was located within the Right of Way 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 within the surveyed area, 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. These infected host plants exhibited approximately 100-200 pilostyles flowers. The actual plant of Thurber's pilostyles occupies the interior of the stem of its host plant and only the flowers are visible as they erupt from the stem. Each individual Pilostyles plant may have several flowers. The host plant may typically have a few to many hundreds of flowers and therefore may harbor scores of pilostyles individuals. These host plants in the current project were small and not very old and therefore might have only supported pilostyles for a short amount of time since their flower structures were not exceptionally abundant on the host plant. (<http://waynesword.palomar.edu/ploct98.htm>).

Thurber's pilostyles is known from Imperial, Riverside, and San Diego counties in California; it also occurs in Arizona, Nevada,, Baja California and Sonora Mexico. There are 21-80 occurrences of California occurrences documented in the Consortium of California Herbaria. Its California Native Plant Society (CNPS) status 4.3 indicates that it has "limited distribution," and that it is "not very threatened" in California.

Ribbed cryptantha (*Cryptantha costata*) was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the Preferred Alignment and Alternatives 1 and 2. It occurs in association with loose sand plant species such as sand verbena (*Abronia villosa*), Spanish needle (*Palafoxia arida*), and primrose (*Oenothera deltoides*). Ribbed cryptantha is very abundant in favorable years as one of the dominant annual plants specifically inhabiting loose drifted sand that occurs on the lee side of shrubs, trees or other objects. In the spring of the 2009 rare plant survey such drifted sand deposits which cover large portions of the Creosote bush Scrub habitat where populated by 100's to 1000's of plants depending upon the size of such drifts. Areas of hard soil surface did not support Ribbed cryptantha. The entire Right of Way for the proposed project certainly supported millions of individuals.

Ribbed cryptantha is known from Imperial, Inyo, Riverside, San Bernardino, and San Diego counties in California; it also occurs in Arizona and Baja California, Mexico. There are 21-80 occurrences in California documented in the Consortium of California Herbaria. Its CNPS

status 4.3 indicates that it has “limited distribution,” and that it is “not very threatened” in California.

Invasive and Noxious Weeds

A number of invasive and noxious weeds were detected during vegetation community mapping within the project site. They are listed and explained below.

Russian thistle (*Salsola tragus*) – Also known as tumbleweed, this annual or biennial plant is widespread in the project area, especially in developed sites that receive supplemental water near agricultural areas and canals.

Sahara mustard (*Brassica tournefortii*) – This annual plant is widespread throughout the project area in both developed areas, such as agricultural/canal, and natural habitats.

Tamarisk or salt cedar (*Tamarix aphylla* and *T. ramosissima*) – This tree was planted for shelter belts and for shade associated with agriculture and residential areas. It has also become established in wetland areas that were formerly dominated by native desert trees such as mesquite. It occurs in long narrow plantings adjacent to agricultural fields and has invaded one natural wetland area approximately one mile south of the Dixieland Substation west of the Foxglove Canal.

Giant cane (*Arundo donax*) – This tall perennial grass is common along canals and natural wetlands where it forms large thickets of dense vegetation. It is also used as an ornamental and hedge plant in residential settings. It is most abundant along the edges of the Westside Main Canal in the project area.

Common reed (*Phragmites australis*) – This perennial grass of medium height is known in both natural wetland habitats and as an invasive plant along canals. It has invaded parts of the margins of the Westside Main Canal throughout its length.

Mediterranean schismus and Arabian schismus (*Schismus arabicus* and *S. barbatus*) – These annual grasses are common throughout desert areas in both natural plant communities and disturbed or cultivated areas. They pose a fire hazard after growing thick during especially wet years and then drying out. *Schismus* species occur throughout the project area.

General Wildlife

Wildlife species observed during the habitat assessment and subsequent surveys were typical of the desert and agriculture environment of southern California. Bird, mammal, and reptile species were all detected during surveys. Some of the bird species observed include loggerhead shrike (*Lanus ludovicianus*), common raven (*Corvus corax*), verdin (*Auriparus flaviceps*), horned lark (*Eremophila alpestris*), black-tailed gnatcatcher (*Polioptila melanura*), BUOW, lesser nighthawk (*Chordeiles acutipennis*), and many other avian species. Mammal species detected during surveys in the project area include black-tailed jackrabbit (*Lepus californica*), coyote (*Canis latrans*), and small mammals including round-tailed ground squirrels (*Spermophilus tereticaudus*). Reptile species observed during surveys include desert iguana (*Dipsosaurus dorsalis*), western whiptail (*Cnemidophorus tigris*), FTHL, and sidewinder (*Crotalus cerastes*). A complete list of wildlife species observed during surveys is included in the Biological Resources Technical Report included as Appendix E.

Sensitive Wildlife

Targeted surveys were conducted for three sensitive species that have the potential to occur in the project area or in the vicinity of the project area: BUOW, FTHL, and MOPL. BUOW and FTHL surveys were completed in spring 2009 (AECOM 2009a, 2009b). Following the proposal to list MOPL by the USFWS, surveys to determine presence or absence were completed in the winter of 2011 (AECOM 2011). RECON Environmental Inc, conducted a protocol survey for SWFL for the ISEC West project that is located to the west of the IID 230 kV transmission line in 2010 (RECON 2010).

Three additional special-status wildlife species were incidentally detected during focused BUOW and FTHL surveys: Gila woodpecker (*Melanerpes uropygialis*, State endangered), loggerhead shrike (*Lanius ludovicianus*, CDFG species of special concern), and northern harrier (*Circus cyaneus*, CDFG species of special concern). Targeted surveys were not conducted for these species. Gila woodpeckers were detected on numerous surveys using and most likely breeding in (a pair and dispersing juveniles) trees in a private residence just south of the Dixieland Substation. They were noticed using wooden utility poles in the surrounding areas. Loggerhead shrikes were detected in various locations throughout the project site and are known to breed in surrounding habitat, primarily desert dry wash woodland. One northern harrier was observed flying over the southern portion of the project site toward agricultural fields and is not likely to breed on-site. Since there is no suitable breeding habitat for the northern harrier within the project site, this species will only be discussed in regard to impacts to raptor foraging habitat.

Locations of the Gila woodpeckers, loggerhead shrikes, and northern harrier can be found in Figure 3.5-2, and are described in detail in the BUOW and FTHL survey reports (separate reports) (AECOM 2009a, 2009b).

Burrowing Owls

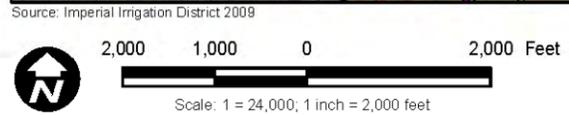
BUOW surveys were performed according to the protocol established by the California Burrowing Owl Consortium (CBOC) and accepted by CDFG (CBOC 1993). The survey consists of four phases: Phase I includes a determination of suitable habitat in the project area, Phase II includes a survey of all suitable habitat for burrows capable of supporting BUOW within the project site and a 500-foot survey buffer, Phase III includes focused surveys of identified burrows for BUOWs, and Phase IV includes a detailed survey report. Phase I surveys were conducted on June 9, 2009, by qualified biologists who determined that the entire project site includes suitable BUOW habitat, and Phase II and III surveys were deemed necessary. Phase II surveys were conducted from June 15 to 30, 2009, which included mapping of all BUOW burrows and sign according to CBOC guidelines within the project boundaries and a 500-foot survey buffer. Phase III surveys were conducted from June 6 to 9, 2009. A total of at least 21 individual BUOWs (including at least three family groups and three unpaired resident BUOW) were detected within the project site and a 500-foot survey buffer. Most BUOW were detected along the eastern portion of the project site along Route Alternative 2 in areas bordering canals and agricultural fields. The locations of the BUOWs detected during Phase III surveys can be found in Figure 3.5-3 and Figure 3.5-4. On these figures, BUOW detected during Phase II and Phase III surveys are depicted; however, data from Phase III surveys were used primarily in the impacts section below. Details of findings, locations, and the Phase IV report can be found under separate cover (AECOM 2009a).

Flat-Tailed Horned Lizards

FTHL surveys were conducted according to the standard approach outlined in the Flat-tailed Horned Lizard Interagency Coordinating Committee (FTHLICC) *Flat-tailed Horned Lizard Rangeland Management Strategy* (FTHLRMS) 2003 Revision (FTHLICC 2003). All habitat that coincided with the Yuha Desert Management Area for FTHL was excluded from surveys and assumed occupied. Suitable habitat outside of the Yuha Desert Management Area was surveyed for FTHL. The survey area included a 1,000-foot survey buffer around the project boundaries in suitable habitat. The 1,000-foot survey buffer was used to comply with California Energy Commission Guidelines (CEC 2007). Four protocol surveys for FTHL were conducted between



Figure 3.5-3

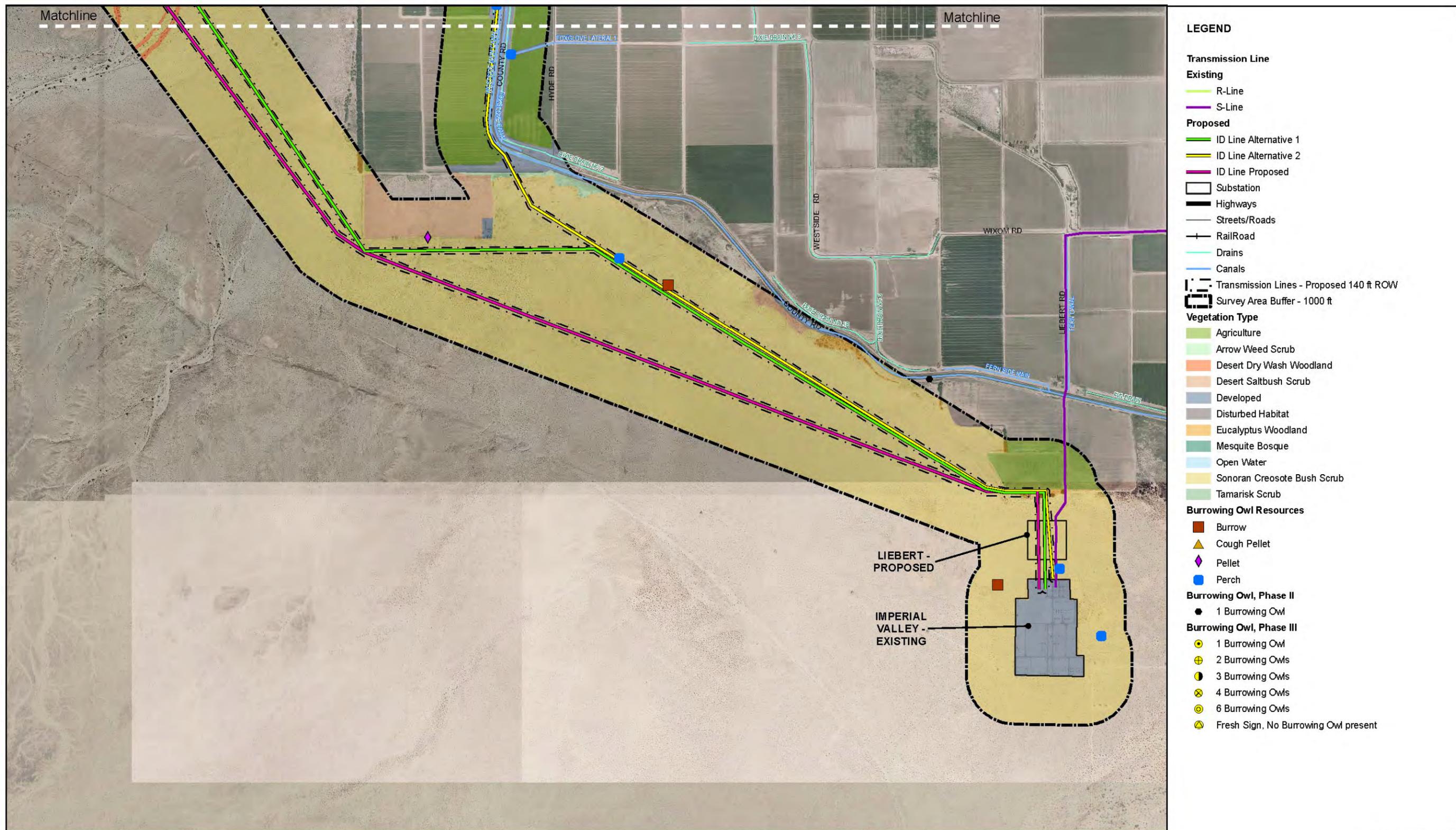


Burrowing Owl Locations - North

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

Path: P:\2009\09080060 IID 230kV\6.0 GIS\6.3 Layout\REPORT_Maps_ALL\MND_EA\Fig3.5-3_BUOWLocations_North.mxd, 12/21/09, ShahS2

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- LEGEND**
- Transmission Line**
- Existing**
- R-Line
 - S-Line
- Proposed**
- ID Line Alternative 1
 - ID Line Alternative 2
 - ID Line Proposed
- Substation
 - Highways
 - Streets/Roads
 - Rail Road
 - Drains
 - Canals
 - Transmission Lines - Proposed 140 ft ROW
 - Survey Area Buffer - 1000 ft
- Vegetation Type**
- Agriculture
 - Arrow Weed Scrub
 - Desert Dry Wash Woodland
 - Desert Saltbush Scrub
 - Developed
 - Disturbed Habitat
 - Eucalyptus Woodland
 - Mesquite Bosque
 - Open Water
 - Sonoran Creosote Bush Scrub
 - Tamarisk Scrub
- Burrowing Owl Resources**
- Burrow
 - Cough Pellet
 - Pellet
 - Perch
- Burrowing Owl, Phase II**
- 1 Burrowing Owl
- Burrowing Owl, Phase III**
- 1 Burrowing Owl
 - 2 Burrowing Owls
 - 3 Burrowing Owls
 - 4 Burrowing Owls
 - 6 Burrowing Owls
 - Fresh Sign, No Burrowing Owl present

Source: Imperial Irrigation District 2009

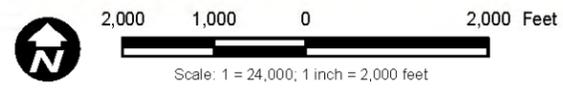


Figure 3.5-4

Burrowing Owl Locations - South

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June 24 and August 12, 2009. One FTHL was detected in suitable habitat adjacent to the Yuha Desert Management Area in the middle of the project site to the east of Route Alternative 1. One other potential FTHL was detected on the first survey but ran under thick brush and was not relocated; therefore, it could only be identified as a horned lizard species and was not detected during future surveys. This potential FTHL was detected near the Dixieland Substation on the west side of the 140-foot ROW. The exact locations of these detections can be found in Figure 3.5-5 and more details are included in the FTHL Survey Report (separate report) (AECOM 2009b).

All habitat surveyed for FTHL within the 140-foot ROW and 1,000-foot survey buffers for the routing alternatives was considered suitable or suitable in the future for FTHL due to the close proximity to known FTHL populations, and FTHL detections during protocol surveys (Figure 3.5-5).

Two additional FTHLs were detected during Phase II BUOW surveys within the Yuha Desert Management Area, and FTHL scat was found throughout suitable habitat within the management area, further confirming FTHL presence. The exact location of FTHL detected during Phase II BUOW surveys can be found in Figure 3.5-5.

Mountain Plover (Charadrius montanus)

MOPL forage in the fields at various stages of the crop rotation, including when soils are freshly tilled prior to planting; when the crops are young and vegetative growth is still under 25 centimeters in height; after the crops have been harvested, and short stubble is present; and after the fields have been burned to prepare them for the next crop. MOPL surveys were conducted using the interim 2011 USFWS guidelines that were supplied to the El Centro field office of the BLM. All MOPL suitable habitats located within the 1,000-foot survey buffer was surveyed (Figure 3.5-6). Surveys were conducted during three field visits between January 27 and February 14, 2011 in an effort to determine the presence or absence of MOPL. No MOPL were detected during the surveys. Complete documentation of the surveys are included in the MOPL Survey Report (separate report) (AECOM 2011).

Southwestern Willow Flycatcher (Empidonax traillii extimus)

RECON conducted four focused surveys for southwestern willow flycatcher, these took place June 13 and 23, and July 7 and 13, 2010. Surveys were initiated based on the incidental sighting of at least five willow flycatchers foraging in a sparse windrow that was comprised of mesquite

and tamarisk trees along the southeastern boundary of the site, adjacent to the Westside Main Canal.

On June 13, no willow flycatchers were observed within the ISEC West survey area. One willow flycatcher was observed approximately 6 miles south of the project, adjacent to the survey area for the ISEC South project (RECON 2010). Prior to this observation, a recording of the southwestern willow flycatcher vocalization was played in order to elicit a response. The individual willow flycatcher did not respond to the vocalization for the southwestern subspecies, but did respond to the vocalization of the northern subspecies *E. t. brewsteri*. During the subsequent surveys for both the ISEC South and West projects in late June and July 2010, no willow flycatchers were detected (RECON 2010).

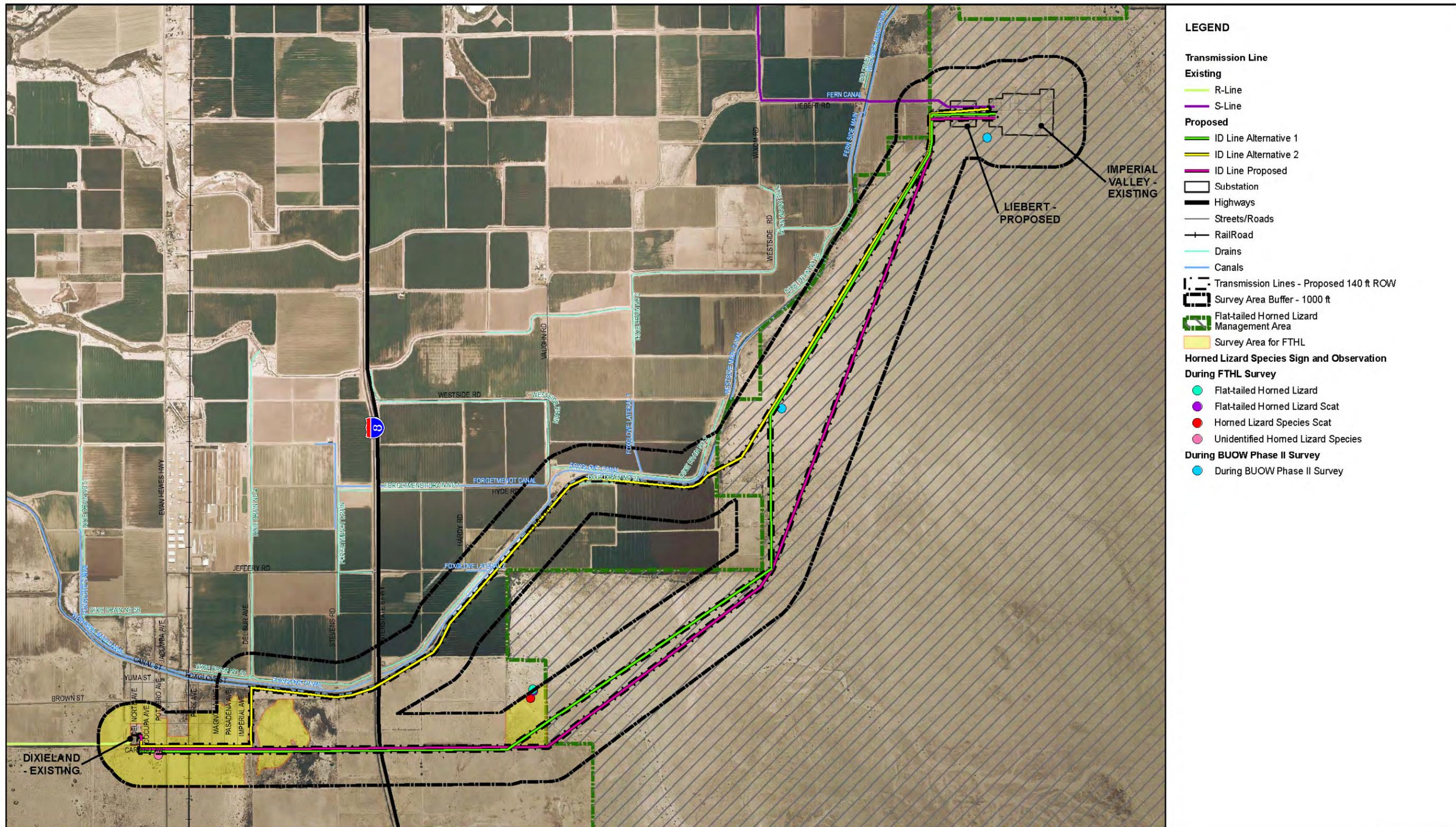
Based on these data, the willow flycatchers observed in early June may have been *E. t. brewsteri*, utilizing the mesquite vegetation for foraging during migration. Based on all available data of southwestern willow flycatcher habits, known populations, and habitat requirements, no willow flycatchers, including the southwestern subspecies, are expected to nest within the survey area, but may forage within the mesquite and arrow weed vegetation adjacent to the Westside Main Canal during migration.

3.5.3 Environmental Effects for the Proposed Action

3.5.3.1 Direct and Indirect Effects

Plants

Invasive plants species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER 2007)*. A *Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)* was released to the public on June 29, 2007. The Record of Decision (ROD) for the PEIS includes standard operating procedures (SOPs) for applying herbicides (summarized in Appendix B, Table B-2 pages B-9 to B-14 of the ROD) and mitigation measures (summarized in Table 2, pages 2-4 to 2-6 of the ROD) that were adopted to ensure that all practicable means to avoid or minimize environmental harm is implemented in these vegetation treatment projects. The Human Health Risk Assessment (PEIS, Appendix B) and Ecological Risk Assessment (PEIS, Appendix C) include an analysis of impacts to resources and human health. This EA tiers to the both the human health and ecological risk assessments, the resource analyses related to the SOPs, and resource analyses related to the mitigation measures in the PEIS.



Source: Imperial Irrigation District 2009; NAIP 2008

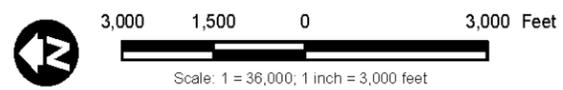


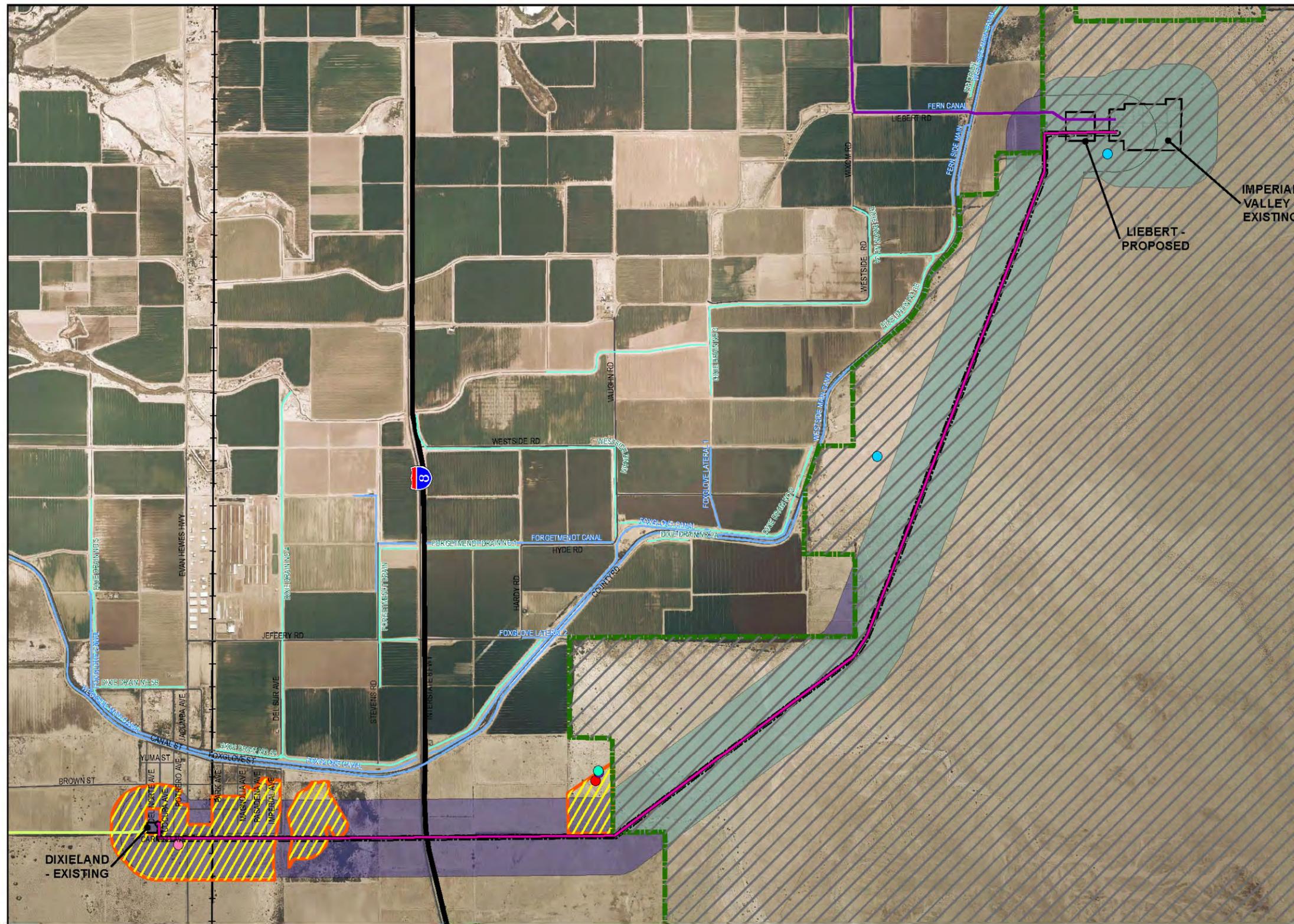
Figure 3.5-5

**Flat-tailed Horned Lizard
Survey Area and Observations**

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

Path: P:\2009\09080060 IID 230kV\6.0 GIS\6.3 Layout\REPORT_Maps_ALL\MND_BAN\fig 3.5-6_FTHLSurveyAreasObs.mxd, 12/21/09, ShahS2

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- LEGEND**
- Transmission Line**
- Existing**
- R-Line
 - S-Line
- Proposed**
- ID Line Proposed
 - Substation
 - Highways
 - Streets/Roads
 - RailRoad
 - Drains
 - Canals
 - Transmission Lines - Proposed 140 ft ROW
 - Survey Area Buffer - 1000 ft
 - Flat-tailed Horned Lizard Management Area
 - Survey Area for FTHL
- Survey Area Buffer - 1000-ft**
- Outside FTHL Management Area
 - Inside FTHL Management Area
- Horned Lizard Species Sign and Observation**
- During FTHL Survey**
- Flat-tailed Horned Lizard
 - Flat-tailed Horned Lizard Scat
 - Horned Lizard Species Scat
 - Unidentified Horned Lizard Species
- During BUOW Phase II Survey**
- During BUOW Phase II Survey

Source: Imperial Irrigation District 2009; NAIP 2006

3,000 1,500 0 3,000 Feet

Scale: 1 = 36,000; 1 inch = 3,000 feet

Figure 3.5-6

Proposed Action Flat-tailed Horned Lizard Impacts

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Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP).

Special-status plant surveys were conducted in the spring of 2010. 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).

Special-Status Species

Thurber’s pilostyles (*Pilostyles thurberi*) was detected as a parasitic plant on indigo bush or dyeweed (*Psoralea emoryi*) at two locations within the BRSA. Two of these sites were located within the Right of Way of the Preferred Alignment and Route Alternative 1, and one site was located within the buffer 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.

Thurber’s pilostyles is known from Imperial, Riverside, and San Diego counties in California; it also occurs in Arizona, Nevada, Sonora, and Baja California, Mexico. There are 23 records of California occurrences documented in the Consortium of California Herbaria. Its CNPS status 4.3 indicates that it has “limited distribution” and that it is “not very threatened” in California.

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*) was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the Preferred Alignment and Alternatives 1 and 2. Approximately 16.9 acres of occupied habitat could be permanently impacted by the Preferred Alignment. It occurs in association with loose sand plant species such as sand verbena (*Abronia villosa*), Spanish needle (*Palafoxia arida*), and primrose (*Oenothera deltooides*).

Ribbed cryptantha is known from Imperial, Inyo, Riverside, San Bernardino, and San Diego counties in California; it also occurs in Arizona and Baja California, Mexico. There are 55 records of California occurrences documented in the Consortium of California Herbaria. Its CNPS status 4.3 indicates that it has "limited distribution" and that it is "not very threatened" in California.

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 permanent 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.

Burrowing Owl

The effect on BUOW addressed considered effects to individuals or burrows as well as the effects to BUOW foraging habitat. Habitat capable of supporting BUOW, FTHL and MOPL was identified in the project area and would be impacted by project implementation. Suitable burrows, foraging, and wintering habitat exist along the alignment of the Proposed Action; however, no resident BUOW were detected within the 500-foot survey buffer around the footprint of the Proposed Action (Figures 3.5-3 and 3.5-4). BUOW CDFG 'plan' considers effects during the breeding season to occur within 250 feet of an occupied burrow (State of California 1995). No permanent or temporary direct impacts are anticipated to occur.

BUOW are known to occur within 1,000-feet of the ROW. Therefore both permanent and temporary indirect impacts to foraging habitats have the potential to occur, including habitat fragmentation, edge effects, increased noise levels, introduction of exotic species, artificial lighting, fugitive dust, increased predation rates, and avian collision and electrocution.

Potentially adverse 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. Potential impacts associated with construction and operations activities could include direct mortality from vehicle strikes, loss of nest burrows, or other impacts. Indirect impacts could potentially occur due to changes in behavioral patterns such as disruption of nesting, foraging, or other activities due to vehicle noise, night lighting, or increased human presence within or adjacent to BUOW (Manning and Kaler 2011). 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.

Flat-Tailed Horned Lizard

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 substantial portion of

the Proposed Action runs through a FTHL Management Area (MA; 41.32 acres), measures in compliance with the FTHLRMS are necessary. The project has been designed to minimize the areas of disturbance with the FTHL Management Area by locating the construction staging areas outside of the FTHL Management Area as shown in Figure 3.5-5.

According to the FTHLRMS, to determine impacts and the required offset for the Proposed Action within a FTHL MA, a multiplier is used (ICC 2003). The multiplier (M) is determined using the following formula:

$$M = 3 + A + G + E + D$$

The FTHLRMS describes in detail this formula and how it applies in different situations. For the Proposed Action, the following was determined:

A = Adjacent Habitat Impacts

b. Adjacent habitat will receive direct or indirect deleterious impacts.....0.5

G = Growth-Inducing Effects within Flat-Tailed Horned Lizard Habitat

b. The project will have growth-inducing effects0.5

E = Existing Disturbance On-Site

b. There is little or no existing habitat disturbance1

D = Duration of Effect

b. The effects of the project are expected to be long term (>10 years).....1

Therefore: $M = 3 + 0.5 + 0.5 + 1 + 1$, which equals 6. Transmission line poles may attract birds, particularly providing perch sites for raptors and shrikes, which prey on FTHL. Additionally, habitat disturbance and shade from structures may increase predation of FTHL by round-tailed ground squirrels. Additional adjacent habitat impacts include habitat fragmentation impacts, edge effects, increased predation rates, changes in fire regime, and a potential increase in exotic species. While the construction of the power lines, transmission poles, and dirt access roads may encourage off-road enthusiasts' access to other areas of the habitat, the long-term presence of the transmission poles and sporadic use of the maintenance road are not anticipated to have a lasting impact on FTHL or its habitat, particularly since the site is located in the MA.

Construction of the transmission line is required to provide electrical transmission capability for all development, whether it is housing, commercial, manufacturing, or renewable energy development, and, thus, the line supports growth. Because of the maintenance road, there would be increased traffic in the general vicinity and the potential for increased recreational use. Therefore, the line and road would have growth-inducing effects.

Currently, there is very little disturbance because the Proposed Action crosses FTHL habitat and does not follow existing dirt access roads.

The project is expected to be in place for more than 10 years. Therefore, all temporary and permanent impacts to FTHL habitat within the 140-foot ROW that occurs within the FTHL MA would be compensated at a ratio of 6:1. Compensation for FTHL habitat lost outside a FTHL MA would be charged at a 1:1 ratio (ICC 2003). The necessary offset calculations are presented in Table 3.5-3 below.

**Table 3.5-3
Compensatory Mitigation Calculations for FTHL Habitat Loss/Degradation**

	FTHL Habitat Permanently Disturbed Inside MA		FTHL Habitat Permanently Disturbed Outside MA		Total Mitigation Requirement (acres)
	Acres	Times Multiplier (6:1)	Acres	Times Multiplier (1:1)	
Proposed Action	41.32	247.92	18.11	18.11	266.03
Route Alternative 1	41.13	246.78	17.02	17.02	263.8
Route Alternative 2	29.36	176.16	8.38	8.38	184.54
Reduced Liebert Substation Alternative	30.61	183.66	18.11	18.11	201.77
No Liebert Substation Alternative	26.94	161.64	18.11	18.11	179.75
No Action Alternative	0	0	0	0	0

Mountain Plover

Habitat capable of supporting wintering MOPL was identified in the overall project area within the active agriculture lands only for Route Alternative 2, not through the Yuha MA and the Preferred Alternative. If Route Alternative 2 is chosen, the mountain plovers would be impacted by project implementation, however, no suitable wintering and foraging habitat exists along the

alignment of the Proposed Action.; No MOPL were detected within the 1,000-foot survey buffer around the footprint of the Proposed Action (Figure 3.5-6). According to studies conducted by Point Reyes Bird Observatory in 1999 no MOPL were found south of Interstate 8 and west of the Westside Main Canal. Surveys conducted by the Los Angeles County Natural History Museum during winter 2011 surveys, no MOPL were found south of Interstate 8. This is the primary location where potentially suitable habitat was found in the Proposed Action. No MOPL were detected during surveys conducted by biologists for the Proposed Action during the winter of 2011. No direct or indirect adverse impacts are anticipated to occur because the available data demonstrates a lack of use of the vicinity of the project and MOPL were not detected on this preferred route nor for the adjacent C-Solar West project site.

Southwestern Willow Flycatcher

Habitat capable of supporting migrating SWFL was identified in the project area and would be impacted by project implementation. Suitable foraging habitat for migrating willow flycatchers exists along the alignment for the Proposed Action (Figure 3.5-3); however no willow flycatchers including SWFL were detected within the 1,000-foot buffer around the footprint for the 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 (Figure 3.5-3). Southwestern willow flycatchers are migrants, arriving on their breeding grounds in mid-May to early June (Garrett and Dunn 1981; Unitt 2004). Because arrival dates vary annually and geographically, northbound migrant willow flycatchers of multiple subspecies pass through areas where SWFL have already begun nesting (Sogge et al. 2010). 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 impacts to SWFL foraging would be minimized through scheduling of project activities to avoid, to the extent feasible, the peak migratory periods for the species and would therefore be discountable. BLM determined that this project is not likely to adversely affect SWFL, pursuant to Section 7 of the Endangered Species

Act. BLM submitted a Biological Assessment and request for concurrence to USFWS on April 1, 2011.

Other Special-Status Wildlife

Loggerhead shrikes detected within the project vicinity may be permanently directly impacted through the loss of breeding habitat. No permanent direct impacts to Gila woodpecker would occur because the private residence does not occur within the 140-foot ROW for the Proposed Action and, therefore, the species would not be permanently impacted. 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 occur.

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 project 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.

Habitats

The 140-foot ROW and 1,000-foot survey buffer associated with the Proposed Action intersect a number of sensitive vegetative communities including desert dry wash woodland, mesquite bosque, and tamarisk scrub (Figure 3.5-7; Table 3.5-4). The most common habitat type that would be impacted is tamarisk scrub, followed by desert dry wash woodland and a small section of mesquite bosque.

These 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.

**Table 3.5-4
Anticipated Impacts to Vegetation**

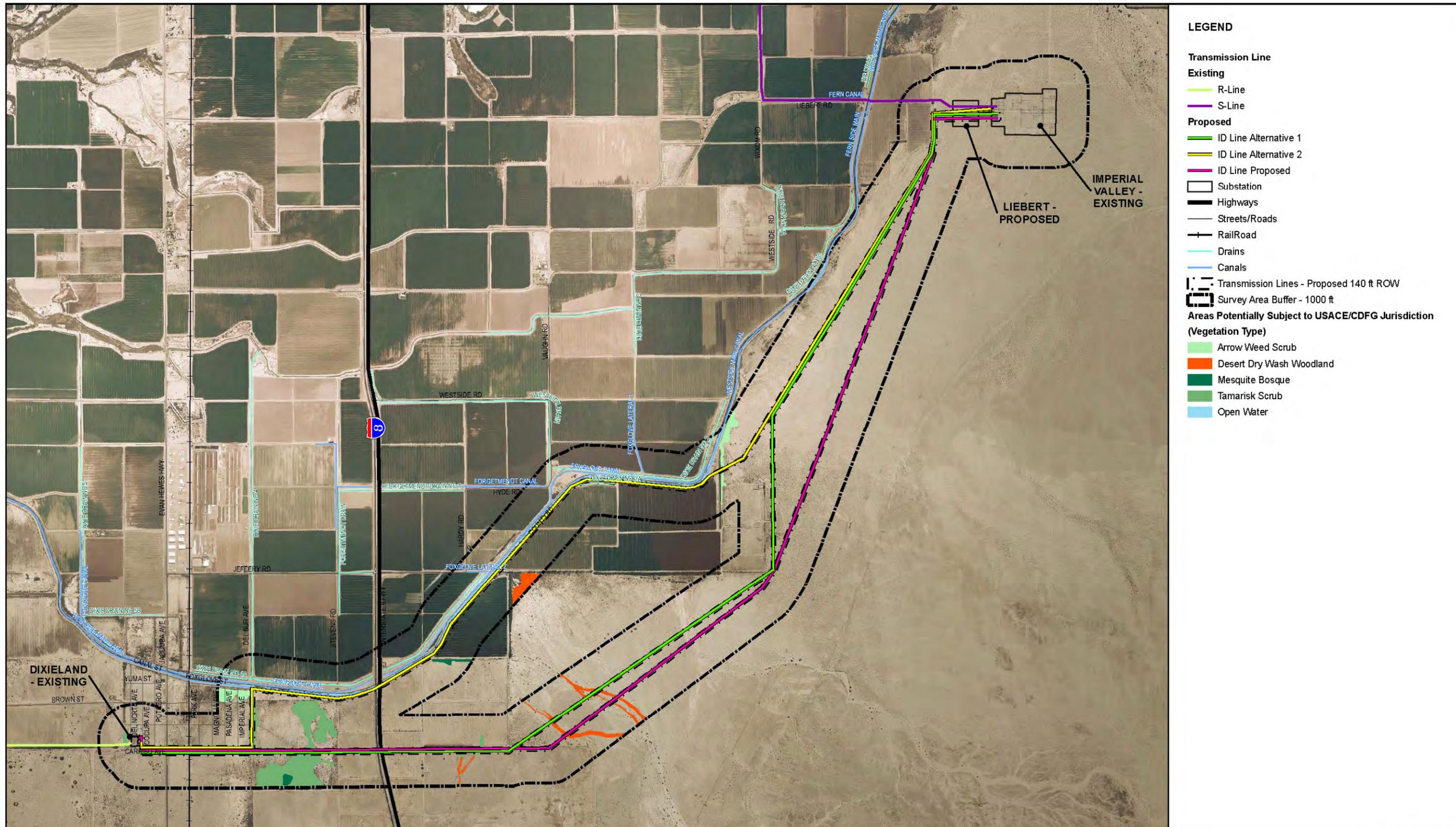
Vegetation Communities and Other Cover Types	Proposed Alternative	Route Alternative 1	Route Alternative 2	Reduced Liebert Alternative	No Liebert Alternative
	Disturbance Area Acres	Disturbance Area Acres	Disturbance Area Acres	Disturbance Area Acres	Disturbance Area Acres
Riparian					
Arrow Weed Scrub	0	0	0.3	0	0
Desert Dry Wash Woodland	0.10	0.31	0	0.10	0.10
Upland					
Desert Saltbush Scrub	1.31	0.92	0.62	1.31	1.31
Mesquite Bosque	0	0	0	0	0
Sonoran Creosote Bush Scrub	49.81	49.98	34.91	39.1	35.43
Tamarisk Scrub	0.07	0.10	1.31	0.43	0.43
Tamarisk Woodland	2.03	0.81	0.9	2.03	2.03
Agriculture*	0.23	0	2.78	0.23	0.23
Developed	1.62	1.56	10.89	1.62	1.62
Disturbed Habitat	7.97	6.94	2.05	7.97	7.97
Open water	0	0	3.24	0	0
Total	63.50	61.61	57.00	52.79	49.12

*Refers to fallowed agricultural lands not active agriculture

As indicated in Figure 3.5-7, 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. Depending on the final locations for the transmission line poles and access road, IID may also be required to secure a Streambed Alteration Agreement from CDFG and implement conditions associated with that agreement.

3.5.3.2 CEQA Significance Determination

BIO-1 Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)



Source: Imperial Irrigation District 2009, NAIP 2006



Figure 3.5-7
Areas Potentially Subject to
USACE and CDFG Jurisdiction

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

Path: P:\2009\09080060 IID 230kV\6.0 GIS\6.3 Layout\REPORT_Maps_ALL\MND_BA\Fig3.5-10_PotentialAreas_USACEandCDFG.mxd, 12/21/09, ShahS2

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Special-Status Plants

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).

Mitigation Measure BIO-A: Conduct preconstruction surveys to confirm the presence or absence of special-status plants within areas that would be affected during construction. If special-status plant populations are found in the vicinity of the project, a mitigation plan will be prepared and implemented that includes provisions for marking the populations as avoidance areas during construction, modifying pole and access road footprints if possible, conducting awareness training for construction personnel, and identifying actions to be taken to compensate for the loss of plant populations in the event they cannot be avoided.

Burrowing Owl

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 the mitigation measures, outlined below, will be implemented to reduce the potential impacts to a less-than-significant level.

Mitigation Measure BIO-B: Implement the following measures to minimize potential impacts to BUOW:

If preconstruction surveys indicate the possibility of direct impacts to active burrows, construction practices and/or pole placement will be modified such that no direct impact occurs, or owls occupying these burrows will be passively relocated, upon approval by CDFG, in the non-breeding season before construction begins. Any pole placement modification would be coordinated with the project archaeologist and BLM field office to avoid additional sensitive resources.

- All occupied burrows within 160 feet of all project activities during the non-breeding season, and within 250 feet during the breeding season (February 1 through August 31) will be barricaded with hay bales to a distance of 10 feet on either side of the burrow and stacked to a height two-bales-high as a noise/disturbance mitigation barrier. The non-disturbance buffer would be established with flagging by the biological monitor prior to any project related activities.
- The qualified monitor shall establish and mark all non-disturbance buffer circles around the occupied burrows during both breeding and non-breeding seasons. The buffer shall be staked and roped-off prior to initiating any activity onsite including power line construction. No activity shall take place within the avoidance buffer area to ensure that disturbance to nesting birds does not occur to ensure compliance with the Migratory Bird Act.
- Disturbance to nesting BUOW that may cause changes of behavior, plugging the burrow entrance or causing the burrow to collapse could effectively destroy the nest, and as such, require a State permit.
- If it is not feasible to avoid direct impact to an active burrow, construction in the area of active burrows will be delayed until owls using these burrows can be passively relocated during the non-breeding season (September 1 to January 31). Due to the presence of agricultural fields to the east of the Proposed Action, any owls that are passively relocated could disperse to these adjacent fields. Suitable foraging and burrow habitat exists nearby (less than 0.25 mile away) where these owls could disperse.
- All burrows that are located within 160 feet of all project activities during the non-breeding season, and within 250 feet during the breeding season (February 1 through August 31) are barricaded as a mitigation measure and will be monitored weekly for activity or signs of owls vacating burrows. Owl numbers and locations of burrows known to have been vacated during construction, as well as any owls that are passively relocated as mitigation for project impacts, will be reported to CDFG. The non-disturbance buffer would be established with flagging by the biological monitor prior to any project related activities.\
- Any disturbance to nesting BUOW would require prior consultation, approval and mitigation in accordance with California Department of Fish and Game requirements. If these measures may cause passive relocation or other detrimental effects to owls then barricading BUOW burrows shall be an alternative based upon CDFG approval.

- Status reports, including all burrowing owl survey reports, owl mitigation actions, and monitoring results, will be submitted to CDFG.
- Design features of the transmission line facilities using the ALPIC guidelines to avoid avian electrocution. Install anti- electrocution devices on top of existing transmission line facilities to prevent harm to raptors and other protected bird species.
- The project's lighting system will provide the minimum illumination required to meet safety and security objectives and will be oriented to minimize additional illumination in areas not pertinent to the facility. If lighting is adjacent to sensitive habitat it will be directed or shielded away from the habitat. No permanent lights are proposed to be installed within sensitive habitat. Light glare shields may also be used to reduce the extent of illumination into adjoining areas.
- During project operation, the disturbance area will be maintained free from nonnative invasive species. This can be accomplished through physical or chemical removal and prevention. Application of an approved herbicide (not toxic to wildlife) will be applied or directly supervised by a State licensed applicator following the label instructions, including application rates and protective equipment. Herbicide will be applied only when wind speeds are less than 5 miles per hour.
- IID shall develop a project-specific habitat restoration plan to encourage native species, control noxious weeds, and provide for erosion control.

Flat-Tailed Horned Lizard

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. Mitigation measures, outlined below, would be implemented to reduce the magnitude of these impacts.

Mitigation Measure BIO-C: Compensate for the loss and/or degradation of FTHL habitat

Table 3.5-3 describes the compensation required for impacts associated with the Proposed Action and alternatives. As indicated in the table, 266.03 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat for the Preferred Alternative. Habitat within the 140-foot ROW and 1,000-foot survey buffer is depicted in Figure 3.5-5.

Pursuant to Title 43 Code of Federal Regulations and the Federal Land Policy and Management Act of 1976, federal land management agencies may permit actions that result in FLHL habitat loss on their lands. To mitigate such losses both within and outside MAs compensation is charged if residual effects would occur after all reasonable on-site mitigation has been applied. Compensation funds may be used to acquire, protect, or restore FTHL habitat, as determined by the FTHL Management Oversight Group. Thus, IID may be required to pay the compensation fee based on the desert land value in the immediate vicinity of the project,

Mitigation Measure BIO-D: Implement the following measures to minimize potential impacts to FTHL:

- Project activities shall occur outside any approved FTHL MA to the extent possible and occur at times of the year to minimize mortality. An approved field contact representative shall be designated to ensure compliance with the FTHLRMS and protective measures for the FTHL. The representative shall have authority and responsibility to halt activities that are in violation of these terms and conditions.
- All project works areas shall be clearly flagged at the outer boundaries to define work limits (at the 140-foot ROW), and all disturbance shall be limited to designated sites within that area. Construction and restoration workers shall restrict their activities and vehicles to flagged areas to reduce impacts to FTHL and its habitat. All work shall be performed outside of the MA to the greatest extent possible to limit impacts within the ROW that lies within the MA. Any pole placement modification would be coordinated with the project archaeologist and BLM field office to avoid additional sensitive resources. The use of existing roads, pull sites, and best management practices (BMPs) shall be shown on final plans to limit disturbance within the MA.
- Within FTHL habitat, the area of disturbance of vegetation and soils shall be the minimum required for the project and vegetation removal and grading minimized to the greatest extent possible. To the extent possible, previously disturbed areas shall be used (existing roads shall be used for travel and equipment storage) and surface soils shall be

stockpiled and replaced following construction to facilitate habitat restoration. Laydown yards or other disturbance area within the MA shall be cleared of FTHL and fenced prior to disturbance (Appendix 7 of the FTHLRMS). Additionally, any unavoidable disturbance of the MA will be identified in advance in the POD, and mitigated per the FTHLRMS.

- At the discretion of the lead agency, newly created access routes shall be restricted by constructing barricades, erecting fences with locked gates, and/or posting signs. These newly created routes of travel within the MA shall be fenced and cleared of FTHL during construction. The fence barriers shall be removed upon completion of the work.
- The BLM approved Project Biologist shall develop and implement a worker education program to ensure that project-related activities comply with these measures. The Project Biologist has the authority to halt activities that are in violation of these terms. He/she shall periodically examine areas of active surface disturbance for FTHL presence and take the necessary steps to ensure open trenches, holes, and excavation areas are inspected for FTHL prior to backfilling.
- Sites of permanent or long-term projects within MAs where activities could cause FTHL mortality (roads, laydown yard, pull sites) shall be cleared by qualified biologists and enclosed with FTHL barrier fencing according to standards outlined in the FTHLRMS.
- IID shall develop a project-specific habitat restoration plan to encourage native species, control noxious weeds, and provide for erosion control.

Mountain Plover

Construction Impact

Mountain plovers are not expected to occur within the project area. Active agricultural fields are present to the east of the project site which may provide suitable foraging habitat for the mountain plover; however, no impacts to mountain plover as a result of construction noise is expected to occur given their extreme tolerance for machinery. Furthermore, construction lighting is not expected to impact mountain plover, as the species is diurnal and therefore would not be moving through the area at night. Impacts to mountain plovers associated with construction of the Proposed Action are not expected to occur.

Operations and Maintenance Impact

Mountain plovers are not expected to occur within the project area. Lighting during operation and maintenance activity will be minimal, as the species is diurnal and therefore would not be moving through the area at night. Impacts to mountain plovers associated with construction of the Proposed Action are not expected to occur.

While potentially suitable winter habitat per the protocol was surveyed, no MOPL were detected within the 1,000-foot buffer. It is unlikely that the project would have direct or indirect adverse impacts to MOPL from either construction or operation/maintenance of the Proposed Action. Conservation measures are planned to address loss of foraging habitat if necessary. This would be discussed in coordination with USFWS and BLM..

Southwestern Willow Flycatcher

As discussed above, no direct or indirect impacts would occur to nesting SWFL. Potential direct and indirect impacts to foraging habitat during migration periods may occur if Project activities coincide with the presence of migrating SWFL. To avoid and minimize any potential impacts to foraging SWFL during migration, the Project would schedule project activities within and adjacent to SWFL foraging habitat, to the extent feasible.

Other Special-Status Wildlife

As discussed above 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 project 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. Some of the proposed measures are outlined below.

Mitigation Measure BIO-E: Implement the following mitigation measures, outlined below, to reduce the magnitude of these impacts to a less-than-significant level.

- An Avian and Bat Protection Plan (ABPP) will be prepared prior to the Decision Record that will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations. These measures incorporate APLIC design guidelines for overhead utilities (2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species. The ABPP will also address disturbance minimization, timing of construction, minimization of activities that would attract prey and predators and incorporation of the Wildlife Mortality Reporting Program and Raven Control Plan.
- For work that must be performed during the avian nesting season, potential direct and indirect impacts to nesting raptors and other avian species shall be mitigated by performing preconstruction nest surveys and avoiding any active nests.
- Biologists shall conduct a preconstruction nesting survey in the project area that takes place during the breeding season (February to early July). If any active nest is located, the nest area will be flagged, and a 200-foot buffer zone will be delineated, flagged, or otherwise marked. Regular reporting and notification requirements shall be met. Under certain circumstances, FWS may agree a buffer reduction is warranted based on individual species biology and behavior. No work activity may occur within these avoidance buffer areas until an approved biologist determines that the fledglings are independent of the nest. This achieves compliance with the Migratory Bird Act.
- Implement the measures listed previously to reduce potential impacts to BUOW as a means of also reducing impacts to loggerhead shrike.
- IID shall ensure that the construction of the lines meets the Avian Protection Council recommendations (APLIC 2006).
- Anti-electrocution devices shall be installed on top of transmission facilities to prevent harm to raptors and other protected bird species consistent with the Suggested Practices for Avian Protection on Power Lines (APLIC 2006).

BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

The 140-foot ROW and 1,000-foot survey buffer associated with the Proposed Action intersect a number of sensitive vegetative communities including desert dry wash woodland, mesquite bosque, and tamarisk scrub (Figure 3.5-7; Table 3.5-4). The most common habitat type that would be impacted is tamarisk scrub, followed by desert dry wash woodland and a small section of mesquite bosque.

These 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.

Mitigation Measure BIO-F: Implement the following mitigation measures, outlined below, to reduce the magnitude of these impacts to a less-than-significant level.

- The Project Biologist shall mark acceptable areas for construction-related activities.
- The Project Biologist shall mark with flagging any areas containing significant riparian vegetation that should be treated as exclusion areas during construction.
- The Project Biologist shall inspect all construction activities to ensure that exclusion areas are maintained. Best management practices shall be employed to prevent loss of habitat due to erosion caused by project-related impacts.
- Fueling of equipment shall take place within existing paved roads and not within 300 feet of or adjacent to drainages or sensitive native desert habitats.
- Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.

- Wildfires shall be prevented by exercising care when driving and by not parking vehicles where catalytic converters could ignite dry vegetation. In times of high fire hazard (e.g., high wind or drought conditions), trucks may need to carry water and shovels or fire extinguishers in the field, or high-fire-risk installations (e.g., electric lines) may need to be delayed. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. No smoking or disposal of cigarette butts shall take place within vegetated areas.
- The introduction of exotic plant species shall be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention. A weed prevention and control plan will be drafted to address impacts and measures to reduce and eliminate the spread of weeds. Preventing exotic plants from entering the site via vehicular sources shall include measures such as implementing Trackclean or another method of vehicle cleaning for vehicles coming and going from the site. Earth-moving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for erosion control. Weed populations introduced into the site during construction shall be eliminated by chemical and/or mechanical means approved by BLM, CDFG, USFWS, and the California Invasive Plant Council (Cal-IPC).

BIO-3 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

As indicated in Figure 3.5-7, 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, flows 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. A preliminary jurisdictional delineation was field verified by USACE on July 29, 2011 and the project impacts meet the threshold to qualify for a nationwide 12 permit. This is a potentially significant impact and mitigation would be required.

Mitigation Measures BIO-G: Implement the following mitigation measures, outlined below, to reduce the magnitude of these impacts to a less-than-significant level.

- The Project Biologist shall mark acceptable areas for construction-related activities.
- The Project Biologist shall mark with flagging any areas containing significant riparian vegetation that should be treated as exclusion areas during construction.
- The Project Biologist shall inspect all construction activities to ensure that exclusion areas are maintained.
- Fueling of equipment shall take place within existing paved roads and not within 300 feet of or adjacent to drainages.
- Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.

BIO-4 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

Portions of the project site are within an MA for FTHL (including FTHL territories) and there is 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; however, 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 the FTHL, loggerhead shrike, BUOW, Kit fox, badger and Gila woodpecker, are considered sensitive or listed species by State or Federal agencies. These species breed or potentially breed in the vicinity of the Proposed Action and 1,000-foot survey buffer. Both permanent and temporary direct impacts would result from implementation of the Proposed Action as discussed previously. Mitigation measures described above for BUOW, FTHL, and other special-status species will adequately reduce these impacts to a less-than-significant level.

BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

BIO-6 Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan

A number of sensitive species, including BUOW, FTHL, loggerhead shrike, northern harrier, Gila woodpecker, and others that are covered under the Imperial Valley Natural Community Conservation Plan (IVNCCP) and Habitat Conservation Plan (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 species addressed in the Draft HCP.

3.5.4 Environmental Effects for Route Alternative 1

3.5.4.1 Direct and Indirect Effects

Plants

Invasive plants species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER 2007)*. A *Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)* was released to the public on June 29, 2007. The Record of Decision (ROD) for the PEIS includes standard operating procedures (SOPs) for applying herbicides (summarized in Appendix B, Table B-2 pages B-9 to B-14 of the ROD) and mitigation measures (summarized in Table 2, pages 2-4 to 2-6 of the ROD) that were adopted to ensure that all practicable means to avoid or minimize environmental harm is implemented in these vegetation treatment projects. The Human Health Risk Assessment (PEIS, Appendix B) and Ecological Risk Assessment (PEIS, Appendix C) include an analysis of impacts to resources and human health. This EA tiers to the both the human health and ecological risk assessments, the resource analyses related to the SOPs, and resource analyses related to the mitigation measures in the PEIS.

Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP).

Thurber's pilostyles a parasitic plant was detected on indigo bush at two locations within the BRSA. One of these sites was located within the Right of Way of Route Alternative 1, and one site was located within the buffer of the existing Imperial Valley Substation. 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. Thurber's pilostyles is known from Imperial, Riverside, and San Diego counties in California; it also occurs in Arizona, Nevada, Sonora, and Baja California, Mexico. There are 23 records of California occurrences documented in the Consortium of California Herbaria. Its CNPS status 4.3 indicates that it has "limited distribution" and that it is "not very threatened" in California.

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 Sahara mustard.

Ribbed cryptantha was detected as relatively common in loose drifting sandy areas of the southern portion of the BRSA, along the Preferred Alignment and Alternatives 1 and 2. Ribbed cryptantha is known from Imperial, Inyo, Riverside, San Bernardino, and San Diego counties in California; it also occurs in Arizona and Baja California, Mexico. There are 55 records of California occurrences documented in the Consortium of California Herbaria. Its CNPS status 4.3 indicates that it has “limited distribution” and that it is “not very threatened” in California.

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.

BUOW

BUOW are known to occur within 1,000-feet of Route Alternative 1. Therefore both permanent and temporary indirect impacts have the potential to occur, including habitat fragmentation, edge effects, increased noise levels, introduction of exotic species, artificial lighting, fugitive dust, increased predation, and collision and electrocution. Burrows, BUOW and BUOW habitat potentially affected by Route Alternative 1 are depicted in Figures 3.5-3 and 3.5-4. However, the number of burrows, BUOW individuals and BUOW families disturbed by activities or passive relocation would vary year to year as BUOW populations and burrow numbers may fluctuate.

FTHL

Permanent direct impacts to FTHL-occupied habitat would occur because the alignment of Route Alternative 1 runs through the Yuha Desert Management Area. Permanent impacts include direct take of FTHL habitat through construction of Route Alternative 1 and loss of FTHL habitat

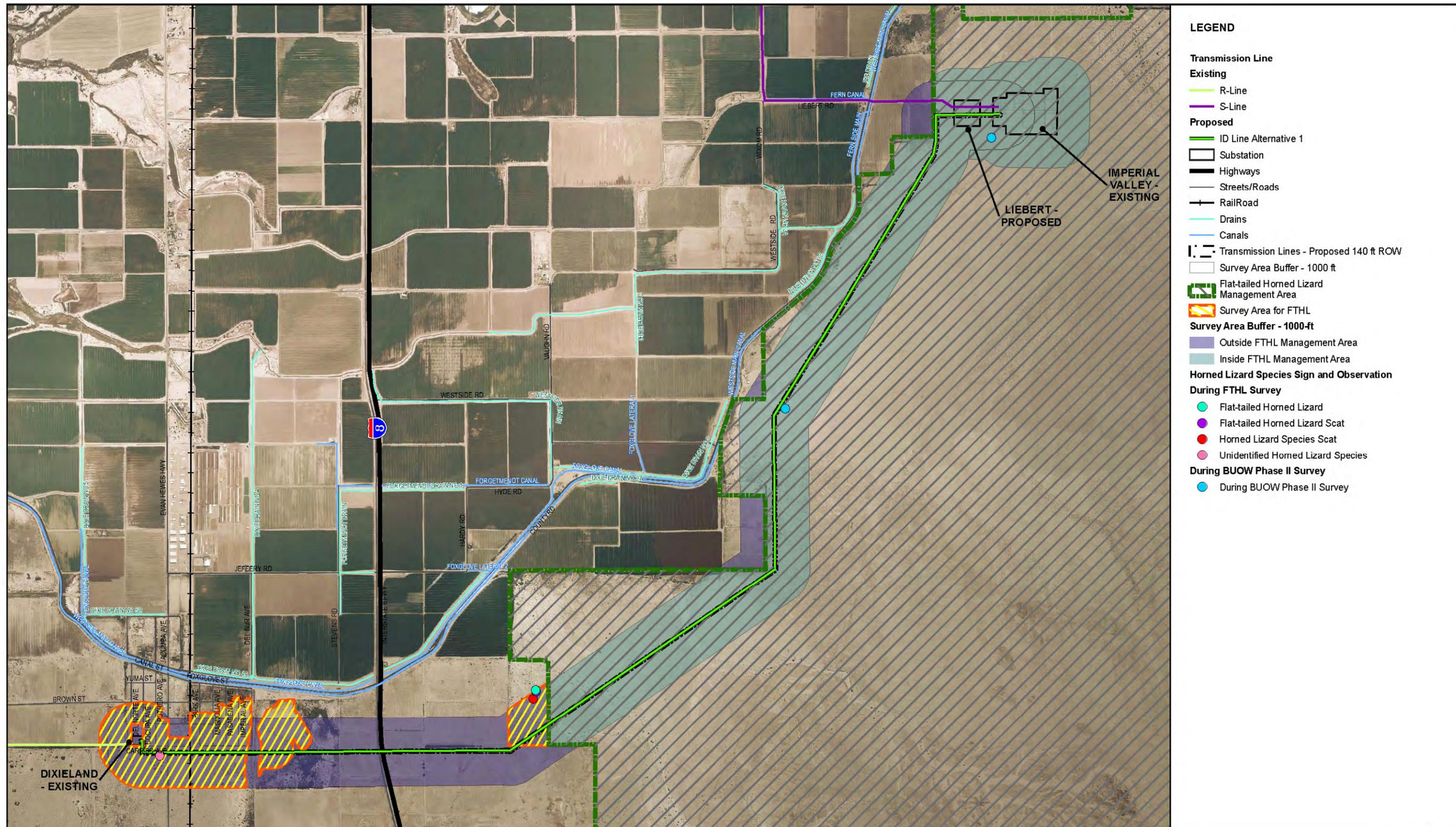
through creation of the new ROW access road and transmission pole foundations and the potential to kill FTHL while driving on those roads. As described, a significant portion of Route Alternative 1 runs through FTHL MA and would require mitigation (Figure 3.5-8). Since a substantial portion of the Route Alternative 1 runs through a FTHL Management Area (41.13 acres), measures in compliance with the FTHLRMS are necessary, as previously depicted in Section 3.5.2 and Table 3.5-3.

Mountain Plover

Route Alternative 1 primarily parallels the Proposed Action alignment and there would be 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 Route Alternative 1. 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

Route Alternative 1 primarily parallels the Proposed Action alignment and impacts would be very similar. Construction activities associated with Route Alternative 1 would occur within SWFL foraging habitat and would have the potential for loss of up to 1.9 acres of habitat (tamarisk and mesquite thickets), both permanent and temporary. Habitat potentially impacted by Route Alternative 1 is depicted in Figures 3.5-3. Suitable SWFL foraging habitat exists around Route Alternative 1 (Figure 3.5-3); however, no SWFL were detected within the 1,000-foot survey buffer around Route Alternative 1. As described for the Proposed Action, direct and indirect impacts to potential foraging habitat could occur during the migratory periods for SWFL. Impacts would be in the form of loss of potential foraging habitat through direct impacts to vegetation, or indirect impacts through increased construction noise and edge effects from increased human encroachment into potential foraging habitat.



- LEGEND**
- Transmission Line**
- Existing**
- R-Line
 - S-Line
- Proposed**
- ID Line Alternative 1
- Substation
- Highways
- Streets/Roads
- RailRoad
- Drains
- Canals
- Transmission Lines - Proposed 140 ft ROW
- Survey Area Buffer - 1000 ft
- Flat-tailed Horned Lizard Management Area
- Survey Area for FTHL
- Survey Area Buffer - 1000-ft**
- Outside FTHL Management Area
 - Inside FTHL Management Area
- Horned Lizard Species Sign and Observation**
- During FTHL Survey**
- Flat-tailed Horned Lizard
 - Flat-tailed Horned Lizard Scat
 - Horned Lizard Species Scat
 - Unidentified Horned Lizard Species
- During BUOW Phase II Survey**
- During BUOW Phase II Survey

Source: Imperial Irrigation District 2008; NAIP 2006

3,000 1,500 0 3,000 Feet

Scale: 1 = 36,000; 1 inch = 3,000 feet

Figure 3.5-8

Route Alternative 1 Flat-tailed Horned Lizard Impacts

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The absence of the SWFL from within the Route Alternative 1 1,000-foot buffer would indicate that no direct or indirect impacts would occur to nesting SWFL. Potential direct and indirect impacts to foraging habitat during migration periods may occur if Project activities coincide with the presence of migrating SWFL. To avoid and minimize any potential impacts to foraging SWFL during migration, the Project would schedule project activities within and adjacent to SWFL foraging habitat, to the extent feasible..

Other Special-Status Species

Impacts to other sensitive wildlife species by construction and maintenance of Route Alternative 1 would be similar to those described previously for the Proposed Action and are considered potentially significant.

Habitats

Similar to the Proposed Action, Route Alternative 1 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.

As indicated in Figure 3.5-7, implementation of Route Alternative 1 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.

3.5.4.2 CEQA Significance Determination

BIO-1 Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in

local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)

Special-Status Plants

As previously discussed, potential impacts to special-status plants for Route Alternative 1 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. One of these sites was located within the Right of Way of Alternative 1, and one site was located within the buffer 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 Route Alternative 1 alignment. Even though the CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very threatened" in California, Mitigation Measure BIO-A would still be required to reduce impacts to a less-than-significant level.

BUOW

As discussed above, potentially significant direct and indirect 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. 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.

FTHL

As previously described, direct and indirect impacts to FTHL-occupied habitat would occur due to Route Alternative 1 running through the Yuha Desert Management Area. Similar to the impacts described for the Proposed Action, a significant portion of Route Alternative 1 runs through FTHL MA and would require mitigation (Figure 3.5-8). As indicated in Table 3.5-3, 263.8 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat. Mitigation Measures BIO-C and BIO-D will be implemented to reduce the potential impacts to a less-than-significant level.

Mountain Plover

As previously discussed, Route Alternative 1 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 Route Alternative 1. 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 discussed above, Route Alternative 1 primarily parallels the Proposed Action alignment and impacts would be very similar. Suitable SWFL foraging habitat exists around Route Alternative 1; however, no SWFL were detected within the 1,000-foot survey buffer around Route Alternative 1. 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 Route Alternative 1. 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 Route Alternative 1 would be similar to those described previously for the Proposed Action and are considered potentially significant. Implementation of Mitigation Measure BIO-E is required to reduce those impacts to a less-than-significant level.

BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

As previously discussed, Route Alternative 1 intersects sensitive vegetation communities that are associated with wetland features. Similar to the Proposed Action, 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 Measure BIO-F is required to reduce these impacts to a less-than-significant level.

BIO-3 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

As indicated above, implementation of Route Alternative 1 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 Measure BIO-G would be required reduce the impacts to a less-than-significant level.

BIO-4 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

Route Alternative 1 would have similar impacts as described for the Proposed Action. Portions of the project site are within a management area for FTHL 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 the 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 Route Alternative 1 as discussed previously. Mitigation measures described above for BUOW, FTHL, MOPL, and other special-status species will adequately reduce these impacts to a less-than-significant level.

BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

BIO-6 Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan

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.

3.5.5 Environmental Effects for Route Alternative 2

3.5.5.1 Direct and Indirect Effects

For Route Alternative 2, potential impacts to biological resources would be similar to those discussed for the Proposed Action.

Plants

Thurber's pilostyles was detected as a parasitic plant on indigo bush at one site 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 Route Alternative 2. The CNPS status 4.3 for both plants is designated as "limited distribution" and "not very threatened" in California.

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.

BUOW

Habitat capable of supporting BUOW was identified within the Route Alternative 2 alignment and would be impacted by project implementation. Suitable burrows and foraging habitat exist around Route Alternative 2 for BUOW. At least three family groups of BUOW and at least three unpaired resident BUOW could be impacted through the implementation of Route Alternative 2. No permanent direct impacts are anticipated to occur to BUOW because the occupied burrows occur outside the 140-foot ROW and, therefore, construction, grading, roads, etc., would not interfere with these burrows. All BUOW family groups and unpaired resident birds were located

on the east side of Route Alternative 2 within the 500-foot survey buffer (Figures 3.5-3 and 3.5-4). There were numerous burrows that were occupied that were just outside of the 140-foot ROW and therefore would not be directly permanently impacted, but would be directly temporarily impacted through fugitive dust, noise, lighting, etc., during construction.

As defined by the 1995 California Department of Fish and Game's Staff Report on Burrowing Owl Mitigation (Staff Report) guidance, an impact to burrowing owl may include:

- Disturbance within 50 meters (approximately 160 feet) which may result in harassment of owls at occupied burrows; or disturbance within 75 meters (approximately 250 feet) during breeding season of February 1 through August 31.
- Destruction of natural and artificial burrows (culverts, concrete slabs, and debris piles that provide shelter to burrowing owls); and,
- Destruction and/or degradation of foraging habitat adjacent (within 100 meters) of an occupied burrow(s).

Although the proximity of the Alternative 2 ROW to documented BUOW locations potentially fall within the definition of construction impacts, there is flexibility to microsite the locations of the construction activities within the ROW. At the time of construction, the project would avoid and minimize potential impacts by determining the current location of BUOW, relative to the project design, and would implement feasible avoidance and minimization measures. These measures could include pole-specific relocation and access road-specific relocation, to minimize disturbance of BUOW. Any unavoidable impacts would be mitigated per the guidelines in the CDFG Staff Report.

FTHL

Similar to the Proposed Action, direct permanent and temporary impacts to FTHL-occupied habitat would occur because a portion of Route Alternative 2 runs through the Yuha Management Area (Figure 3.5-9). Direct permanent impacts include take of FTHL habitat through construction of Route Alternative 2 and mortality to FTHL through creation of new roads and potential to kill FTHL while driving on those roads. Since a portion of Route Alternative 2 runs through an FTHL MA, mitigation for direct permanent impacts would be required (Table 3.5-3). However, only a portion of these acreages, consisting of dirt access roads, transmission pole locations, staging areas, etc., would be permanently impacted. Habitat potentially impacted by Route Alternative 2 is depicted in Figure 3.5-1.

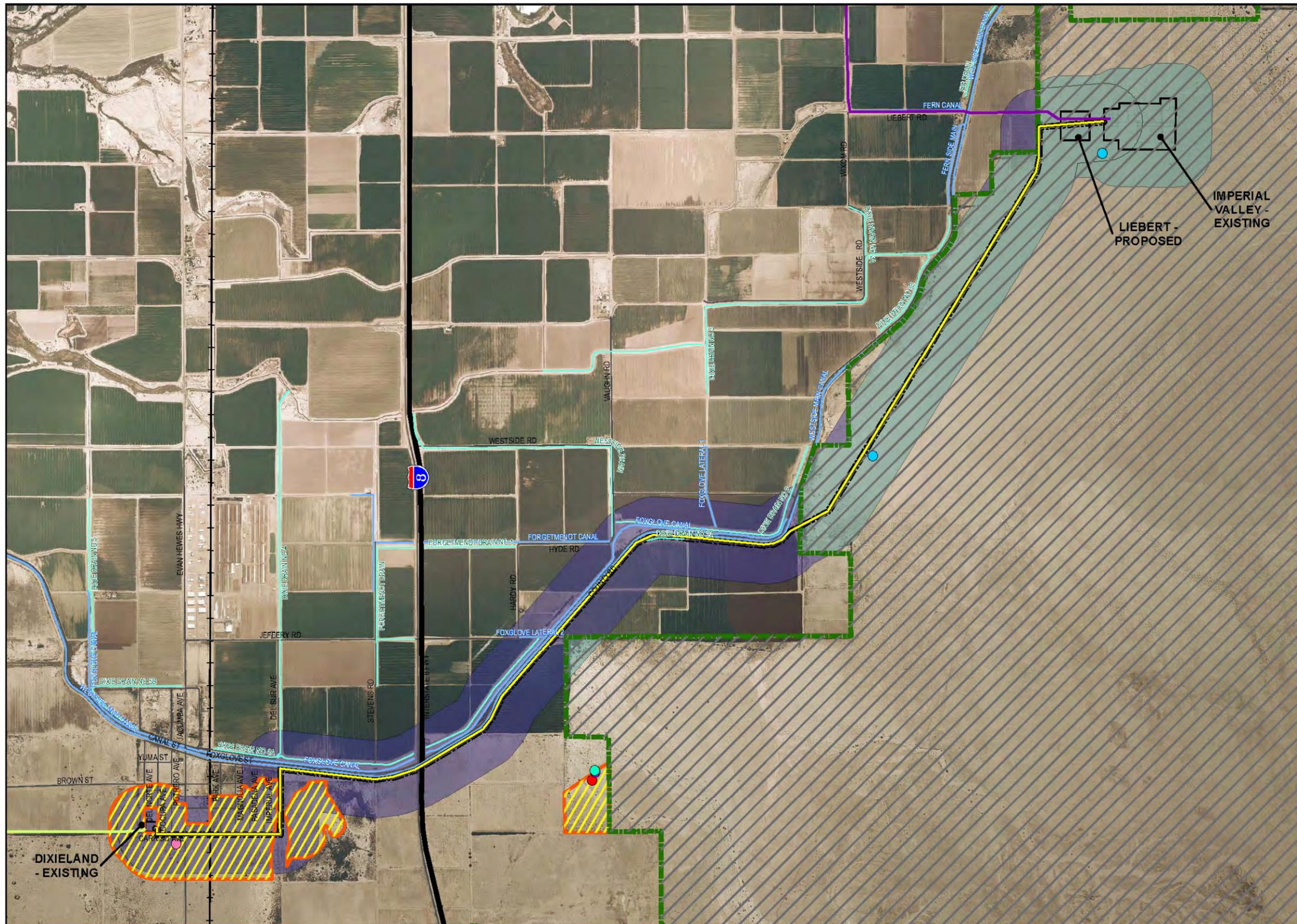
Mountain Plover

Habitat capable of supporting wintering MOPL was identified within the Route Alternative 2 alignment and would be impacted by project implementation. Suitable wintering and foraging habitat exists around Route Alternative 2 for MOPL. No permanent direct impacts are anticipated to occur to MOPL because the MOPL were not detected within the 1,000-foot survey area. The absence of the MOPL from within the 1,000-foot buffer would indicate that the project would not have a direct or indirect impact to MOPL from construction and operation/maintenance of Route Alternative 2. 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. Mountain Plovers were considered, however on May 12, 2011, the Fish and Wildlife Service withdrew the proposed rule for listing the mountain plover as threatened, therefore ESA Section 7 conference on this species is no longer applicable. Conservation measures will be those used to comply with the Migratory Bird Act.

Southwestern Willow Flycatcher

Habitat capable of supporting migrating SWFL was identified within the Route Alternative 2 alignment and would be impacted by project implementation. Suitable foraging habitat exists around Route Alternative 2 for SWFL. Willow flycatchers (*E.t. brewsteri*) were identified within the 1,000-foot survey area in the mesquite bosque. No permanent direct impacts are anticipated to occur to SWFL or willow flycatcher because the mesquite bosque occurs outside the 140-foot ROW and, therefore, construction, grading, roads, etc., would not interfere with this habitat.

Both permanent and temporary indirect impacts have the potential to occur, including habitat fragmentation, edge effects, increased noise levels, introduction of exotic species, artificial lighting, fugitive dust, increased predation rates, and avian collision and electrocution.



- LEGEND**
- Transmission Line**
- Existing**
- R-Line
 - S-Line
- Proposed**
- ID Line Alternative 2
 - Substation
 - Highways
 - Streets/Roads
 - RailRoad
 - Drains
 - Canals
 - Transmission Lines - Proposed 140 ft ROW
 - Survey Area Buffer - 1000 ft
 - Flat-tailed Horned Lizard Management Area
 - Survey Area for FTHL
- Survey Area Buffer - 1000-ft**
- Outside FTHL Management Area
 - Inside FTHL Management Area
- Horned Lizard Species Sign and Observation**
- During FTHL Survey**
- Flat-tailed Horned Lizard
 - Flat-tailed Horned Lizard Scat
 - Horned Lizard Species Scat
 - Unidentified Horned Lizard Species
- During BUOW Phase II Survey**
- During BUOW Phase II Survey

Source: Imperial Irrigation District 2009, NAIP 2006

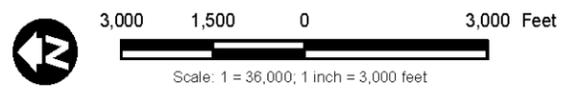


Figure 3.5-9

Route Alternative 2 Flat-tailed Horned Lizard Impacts

ID 230-kV Transmission Line and Substation Expansion—Imperial Valley to Dixieland Substations MND/EA

Path: P:\2009\09080060 IID 230kV\6.0 GIS\6.3 Layout\REPORT_Maps_ALL\MND_EA\Fig3.5-9_FTHLSurveyAreasObs_RouteAlt2.mxd, 12/21/09, ShahiS2

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Other Special-Status Species

Other sensitive wildlife species detected within Route Alternative 2 may be directly permanently impacted through loss of breeding habitat such as the loggerhead shrike. There would be no direct permanent impacts to Gila woodpecker because the private residence does not occur within the 140-foot ROW for Route Alternative 2 and, therefore, would not be permanently impacted. There would be no direct impact to willow flycatcher because the mesquite bosque does not occur within the 140-foot ROW for Route Alternative 2 and, therefore, would not be permanently impacted. Direct permanent impacts would occur to any nesting bird species during vegetation clearing and removal.

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.

Habitats

Similar to the Proposed Action, Route Alternative 2 intersects sensitive vegetation communities 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.

As indicated in Figure 3.5-7, implementation of Route Alternative 2 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.

3.5.5.2 CEQA Significance Determination

BIO-1 Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)

Special-Status Plants

As discussed above, potential impacts under Route Alternative 2 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 one location within the BRSA within the buffer 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 Route Alternative 2 alignment. The CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very threatened" in California, Mitigation Measure BIO-A would be required to reduce impacts to a less-than-significant level.

BUOW

As previously discussed, habitat capable of supporting BUOW was identified within the Route Alternative 2 alignment and would be impacted by project implementation. Suitable burrows and foraging habitat exist around Route Alternative 2 for BUOW. At least three family groups of BUOW and at least three unpaired resident BUOW could be impacted through the implementation of Route Alternative 2. No permanent direct impacts are anticipated to occur to BUOW because the occupied burrows occur outside the 140-foot ROW and, therefore, construction, grading, roads, etc., would not interfere with these burrows. All BUOW family groups and unpaired resident birds were located on the east side of Route Alternative 2 within the 500-foot survey buffer (Figures 3.5-3 and 3.5-4). There were numerous burrows that were occupied that were just outside of the 140-foot ROW and therefore would not be directly permanently impacted, but would be directly temporarily impacted through fugitive dust, noise, lighting, etc., during construction. Mitigation Measure BIO-B would be required to reduce 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 Route Alternative 2 runs through the Yuha Management Area. Since a portion of Route Alternative 2 runs through an FTHL MA, mitigation for direct permanent impacts would be required. As indicated in Table 3.5-3, 184.54 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 discussed above, habitat capable of supporting wintering MOPL was identified within the Route Alternative 2 alignment and would be impacted by project implementation. Suitable wintering and foraging habitat exists around Route Alternative 2 for MOPL. No permanent direct impacts are anticipated to occur to MOPL because the MOPL were not detected within the 1,000-foot survey area

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 Route Alternative 2. 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, habitat capable of supporting migrating SWFL was identified within the Route Alternative 2 alignment and would be impacted by project implementation. Suitable foraging habitat exists around Route Alternative 2 for SWFL and willow flycatchers were identified within the 1,000-foot survey area in the mesquite bosque. No permanent direct impacts are anticipated to occur to SWFL or willow flycatcher because the mesquite bosque occurs outside the 140-foot ROW and, therefore, construction, grading, roads, etc., would not interfere with this habitat.

Both permanent and temporary indirect impacts have the potential to occur, including habitat fragmentation, edge effects, increased noise levels, introduction of exotic species, artificial lighting, fugitive dust, increased predation rates, and avian collision and electrocution.

No potentially significant direct impacts to SWFL would result from construction and operation/maintenance of Route Alternative 2. Therefore, no species specific mitigation measures would be required.

Other Special-Status Species

Other sensitive wildlife species detected within Route Alternative 2 may be directly permanently impacted through loss of breeding habitat such as the loggerhead shrike. There would be no direct permanent impacts to Gila woodpecker because the private residence does not occur within the 140-foot ROW for Route Alternative 2 and, therefore, would not be permanently impacted. There would be no direct impact to willow flycatcher because the mesquite bosque does not occur within the 140-foot ROW for Route Alternative 2 and, therefore, would not be permanently impacted. Direct permanent impacts would occur to any nesting bird species during vegetation clearing and removal; however, they would be considered less-than-significant if Mitigation Measure BIO-E are adhered to.

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.

BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

Similar to the Proposed Action, Route Alternative 2 intersects sensitive vegetation communities that are associated with wetland features (Figure 3.5-9). 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.

BIO-3 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

As indicated in Figure 3.5-7, implementation of Route Alternative 2 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.

BIO-4 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

Route Alternative 2 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 Route Alternative 2 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.

BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

BIO-6 Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan

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.

3.5.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.5.6.1 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. As such, potential impacts to biological resources for the Reduced Liebert Substation Alternative would be similar to those discussed for the Proposed Action.

Invasive plants species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER 2007)*. A *Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)* was released to the public on June 29, 2007. The Record of Decision (ROD) for the PEIS includes standard operating procedures (SOPs) for applying herbicides (summarized in Appendix B, Table B-2 pages B-9 to B-14 of the ROD) and mitigation measures (summarized in Table 2, pages 2-4 to 2-6 of the ROD) that were adopted to ensure that all practicable means to avoid or minimize environmental harm is implemented in these vegetation treatment projects. The Human Health Risk Assessment (PEIS, Appendix B) and Ecological Risk Assessment (PEIS, Appendix C) include an analysis of impacts to resources and human health. This EA tiers to the both the human health and ecological risk assessments, the resource analyses related to the SOPs, and resource analyses related to the mitigation measures in the PEIS.

Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP).

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. One of these sites was located near the buffer area of the Reduced Liebert Substation Alternative, and one site was located within the Right of Way of Preferred Project and Alternative 1 Right of Way in some agricultural fields.

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. The CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very threatened" 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 project would not have a significant direct or indirect impact to MOPL from construction and operation/maintenance of the Reduced Liebert Substation Alternative.

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, minimization measures may 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.

3.5.6.2 CEQA Significance Determination

BIO-1 Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in

local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)

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 a parasitic plant was detected on indigo bush at two locations within the BRSA. One of these sites was located within the buffer area of the Reduced Liebert Substation Alternative, and one site was located within the Preferred Alternative 1 Right of Way in some agricultural fields.

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. The CNPS status 4.3 for both plant species indicates that both plants have "limited distribution" and are "not very threatened" 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. Disturbance by personnel, equipment, and other activities could cause abandonment of occupied burrows. During the non-breeding season a buffer would be given to occupied burrows within 160 feet, and during the breeding season (February 1 through August 31) within 250 feet of project related activities. The occupied burrows will be barricaded with hay bales to a distance of 10 feet on either side of the burrow and stacked to a height two-bales-high as a noise/disturbance mitigation barrier. 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.

During the BUOW nesting season (February 1 to August 31), the qualified monitor shall establish and mark a 250 foot non-disturbance buffer circle around the occupied burrow. The buffer shall be staked and roped-off prior to initiating any activity onsite including power line

construction. No activity shall take place within the avoidance buffer area to ensure that disturbance to nesting birds does not occur to ensure compliance with the Migratory Bird Act. Any disturbance to nesting BUOW would require prior consultation, approval and mitigation in accordance with California Department of Fish and Game requirements. If these measures may cause passive relocation or other detrimental effects to owls then barricading BUOW burrows shall be an alternative based upon CDFG approval.

Disturbing nesting BUOW that may cause changes of behavior, plugging the burrow entrance or causing the burrow to collapse could effectively destroy the nest, and as such, require a State permit.

If an active, non-breeding BUOW burrow is detected all project activities should be located at a 160-foot radius as determined by a qualified biologist, from the occupied burrow to create and mark a non-disturbance buffer around the burrow. The non-disturbance buffer would be established with flagging by the biological monitor prior to any project related activities.

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. 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

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.

BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

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.

BIO-3 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

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.

BIO-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

The 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.

BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

BIO-6 Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan

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.

3.5.7 Environmental Effects for the No Liebert Substation Alternative

3.5.7.1 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. As such, potential impacts to biological resources for the No Liebert Substation Alternative would be similar to those discussed for the Proposed Action.

Invasive plants species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER 2007)*. A *Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)* was released to the public on June 29, 2007. The Record of Decision (ROD) for the PEIS includes standard operating procedures (SOPs) for applying herbicides (summarized in Appendix B, Table B-2 pages B-9 to B-14 of the ROD) and mitigation measures (summarized in Table 2, pages 2-4 to 2-6 of the

ROD) that were adopted to ensure that all practicable means to avoid or minimize environmental harm is implemented in these vegetation treatment projects. The Human Health Risk Assessment (PEIS, Appendix B) and Ecological Risk Assessment (PEIS, Appendix C) include an analysis of impacts to resources and human health. This EA tiers to the both the human health and ecological risk assessments, the resource analyses related to the SOPs, and resource analyses related to the mitigation measures in the PEIS.

Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP).

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. One of these sites was located near the buffer area of the No Liebert Substation Alternative, and one site was located within the buffer 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. The CNPS status 4.3 indicates that both plants have "limited distribution" and are "not very threatened" in California, Mitigation Measure BIO-A would be required to reduce impacts to a less-than-significant level.

The No Liebert Substation Alternative removes the potential direct impacts to Thurber's pilostyles and Ribbed crypthantha. However, this would also remove the associated weed control measures to this facility that would otherwise provide a benefit to these sensitive plants in that portion of the project. This would have a small but incremental negative indirect effect by allowing these weedy species to continue to grow in this 14.38 acre portion of the overall project

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, and ongoing seasonal surveys conducted for the region with no MOPL documented for the project area and surrounding region, 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 suitable, but as yet unoccupied or unutilized habitat is known from the region, the project would conduct preconstruction avian surveys, with MOPL as a target species, to determine if this species is present. If documented during the preconstruction surveys, impacts to MOPL and its habitat would be avoided and minimized to the extent feasible, through project micrositing.

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 refer to global comments around the No Liebert Substation Alternative. 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.

3.5.7.2 CEQA Significance Determination

BIO-1 Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)

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 threatened" 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.

BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

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.

BIO-3 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

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.

BIO-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

The 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.

BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

BIO-6 Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan

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.

3.5.8 Environmental Effects for the No Action Alternative

3.5.8.1 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.

3.5.8.2 CEQA Significance Determination

BIO-1 Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in

local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)

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). Under the No Action Alternative, there would be no construction activities where these plant species were detected.

However, this No Action Alternative would also remove the associated weed control measures for the project that would otherwise provide a benefit to the *Pilostyles thurberi* and Ribbed cryptantha. This would have a negative indirect effect by allowing these weedy species to continue to grow throughout the overall project area. Weed control along the proposed powerline would have a long term beneficial effect to the two sensitive plant species identified along this corridor.

Under the No Action Alternative, there would be no construction activities within BUOW, FTHL, and MOPL 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 would result.

BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

Under the No Action Alternative, no proposed construction would occur and, therefore, there would be no impacts to riparian habitat or any other sensitive natural community.

However, this No Action Alternative would also remove the associated weed control measures for the project that would otherwise provide a benefit to the native plant communities in the riparian areas with particular emphasis to invasive Tamarisk, *Arundo* and other wetland weed species. This would have a negative indirect effect by allowing these weedy species to continue to grow throughout the overall project area. Weed control along the proposed powerline would have a long term beneficial effect to the two sensitive plant species identified along this corridor.

BIO-3 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

No jurisdictional waters of the U.S. in the project area would be affected, as no construction would occur under the No Action Alternative. No impacts would result.

BIO-4 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

Under the No Action Alternative, wildlife corridor or wildlife nursery sites in the project vicinity would not be affected because no construction would take place. No impacts would result from the No Action Alternative.

BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

BIO-6 Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan

Because no construction would occur under this alternative, there are no potential conflicts with adopted HCPs, NCCPs, or other approved local, regional, or State HCPs; thus, no impacts would result.

3.5.9 Mitigation Measures

BIO-A Conduct preconstruction surveys to confirm the presence or absence of special-status plants within areas that would be affected during construction. If special-status plant populations are found in the vicinity of the project, a mitigation plan will be prepared and implemented that includes provisions for marking the

populations as avoidance areas during construction, modifying pole and access road footprints if possible, conducting awareness training for construction personnel, and identifying actions to be taken to compensate for the loss of plant populations in the event they cannot be avoided.

BIO-B Implement the following measures to minimize potential impacts to BUOW:

If preconstruction surveys indicate the possibility of direct impacts to active burrows, construction practices and/or pole placement will be modified such that no direct impact occurs, or owls occupying these burrows will be passively relocated, upon approval by CDFG, in the non-breeding season before construction begins. Any pole placement modification would be coordinated with the project archaeologist and BLM field office to avoid additional sensitive resources.

- Disturbance to nesting BUOW that may cause changes of behavior, plugging the burrow entrance or causing the burrow to collapse could effectively destroy the nest, and as such, require a State permit.
- All occupied burrows within 160 feet of all project activities during the non-breeding season, and within 250 feet during the breeding season (February 1 through August 31) will be barricaded with hay bales to a distance of 10 feet on either side of the burrow and stacked to a height two-bales-high as a noise/disturbance mitigation barrier. The non-disturbance buffer would be established with flagging by the biological monitor prior to any project related activities.
- The qualified monitor shall establish and mark all non-disturbance buffer circles around the occupied burrows. The buffer shall be staked and roped-off prior to initiating any activity onsite including power line construction. No activity shall take place within the avoidance buffer area to ensure that disturbance to nesting birds does not occur to ensure compliance with the Migratory Bird Act.
- If it is not feasible to avoid direct impact to an active burrow, construction in the area of active burrows will be delayed until owls using these burrows can be passively relocated during the non-breeding season (September 1 to January 31). Due to the presence of agricultural fields to the east of the Proposed Action, any owls that are passively relocated could disperse to these adjacent fields. Suitable foraging and burrow habitat exists nearby (less than 0.25 mile away) where these owls could disperse.

- All burrows that are located within 160 feet of all project activities during the non-breeding season, and within 250 feet during the breeding season (February 1 through August 31) are barricaded as a mitigation measure will be monitored weekly for activity or signs of owls vacating burrows. Owl numbers and locations of burrows known to have been vacated during construction, as well as any owls that are passively relocated as mitigation for project impacts, will be reported to CDFG. The non-disturbance buffer would be established with flagging by the biological monitor prior to any project related activities.
- Any disturbance to nesting BUOW would require prior consultation, approval and mitigation in accordance with California Department of Fish and Game requirements. If these measures may cause passive relocation or other detrimental effects to owls then barricading BUOW burrows shall be an alternative based upon CDFG approval.
- Status reports, including all burrowing owl survey reports, owl mitigation actions, and monitoring results, will be submitted to CDFG.
- Design features of the transmission line facilities using the ALPIC guidelines to avoid avian electrocution. Install anti- electrocution devices on top of existing transmission line facilities to prevent harm to raptors and other protected bird species.
- The project's lighting system will provide the minimum illumination required to meet safety and security objectives and will be oriented to minimize additional illumination in areas not pertinent to the facility. If lighting is adjacent to sensitive habitat it will be directed or shielded away from the habitat. No permanent lights are proposed to be installed within sensitive habitat. Light glare shields may also be used to reduce the extent of illumination into adjoining areas.
- During project operation, the disturbance area will be maintained free from nonnative invasive species. This can be accomplished through physical or chemical removal and prevention. Application of an approved herbicide (not toxic to wildlife) will be applied or directly supervised by a State licensed applicator following the label instructions, including application rates and protective equipment. Herbicide will be applied only when wind speeds are less than 5 miles per hour.
- IID shall develop a project-specific habitat restoration plan to encourage native species, control noxious weeds, and provide for erosion control.

BIO-C Compensate for the loss and/or degradation of FTHL habitat

Table 3.5-3 describes the compensation required for impacts associated with the Proposed Action and alternatives. As indicated in the table, 266.03 acres of compensatory mitigation must be provided for loss and/or degradation of FTHL habitat for the Preferred Alternative. Habitat within the 140-foot ROW and 1,000-foot survey buffer is depicted in Figure 3.5-5. Based on IID's discussions with BLM staff on FTHL compensatory land replacement for other projects, there may no longer be sufficient private land holdings available for purchase within the MAs. Thus, IID may be required to pay the compensation fee based on the desert land value in the immediate vicinity of the project in lieu of replacement land. This money would be used by BLM to enhance habitat within the MAs as determined by the FTHL Management Oversight Group.

BIO-D Implement the following measures to minimize potential impacts to FTHL:

- Project activities shall occur outside any approved FTHL MA to the extent possible and occur at times of the year to minimize mortality. A field contact representative shall be designated to ensure compliance with the FTHLRMS and protective measures for the FTHL. The representative shall have authority and responsibility to halt activities that are in violation of these terms and conditions.
- All project works areas shall be clearly flagged at the outer boundaries to define work limits (at the 140-foot ROW), and all disturbance shall be limited to designated sites within that area. Construction and restoration workers shall restrict their activities and vehicles to flagged areas to reduce impacts to FTHL and its habitat. All work shall be performed outside of the MA to the greatest extent possible to limit impacts within the ROW that lies within the MA. Any pole placement modification would be coordinated with the project archaeologist and BLM field office to avoid additional sensitive resources. The use of existing roads, pull sites, and best management practices (BMPs) shall be shown on final plans to limit disturbance within the MA.
- Within FTHL habitat, the area of disturbance of vegetation and soils shall be the minimum required for the project and vegetation removal and grading minimized to the greatest extent possible. To the extent possible, previously disturbed areas shall be used (existing roads shall be used for travel and equipment storage) and surface soils shall be stockpiled and replaced following construction to facilitate habitat restoration. Laydown yards or other disturbance area within the MA shall be cleared of FTHL and fenced prior to disturbance (Appendix 7 of the FTHLRMS).

- At the discretion of the lead agency, newly created access routes shall be restricted by constructing barricades, erecting fences with locked gates, and/or posting signs. These newly created routes of travel within the MA shall be fenced and cleared of FTHL during construction. The fence barriers shall be removed upon completion of the work.
- The Project Biologist shall develop and implement a worker education program to ensure that project-related activities comply with these measures. The Project Biologist has the authority to halt activities that are in violation of these terms. He/she shall periodically examine areas of active surface disturbance for FTHL presence and take the necessary steps to ensure open trenches, holes, and excavation areas are inspected for FTHL prior to backfilling.
- Sites of permanent or long-term projects within MAs where activities could cause FTHL mortality (roads, laydown yard, pull sites) shall be cleared by qualified biologists and enclosed with FTHL barrier fencing according to standards outlined in the FTHLRMS.
- IID shall develop a project-specific habitat restoration plan to encourage native species, control noxious weeds, and provide for erosion control.

BIO-E Implement the following mitigation measures, outlined below, to reduce the magnitude of these impacts to a less-than-significant level.

- For work that must be performed during the avian nesting season, potential direct and indirect impacts to nesting raptors and other avian species shall be mitigated by performing preconstruction nest surveys and avoiding any active nests.
- Implement the measures listed previously to reduce potential impacts to BUOW as a means of also reducing impacts to loggerhead shrike.
- IID shall ensure that the construction of the lines meets the Avian Protection Council recommendations (APLIC 2006).
- Anti-electrocution devices shall be installed on top of transmission facilities to prevent harm to raptors and other protected bird species consistent with the Suggested Practices for Avian Protection on Power Lines (APLIC 2006).

BIO-F Implement the following mitigation measures, outlined below, to reduce the magnitude of these impacts to a less-than-significant level.

- The Project Biologist shall mark acceptable areas for construction-related activities.
- The Project Biologist shall mark with flagging any areas containing significant riparian vegetation that should be treated as exclusion areas during construction.
- The Project Biologist shall inspect all construction activities to ensure that exclusion areas are maintained. Best management practices shall be employed to prevent loss of habitat due to erosion caused by project-related impacts.
- Fueling of equipment shall take place within existing paved roads and not within 300 feet of or adjacent to drainages or sensitive native desert habitats.
- Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.
- Wildfires shall be prevented by exercising care when driving and by not parking vehicles where catalytic converters could ignite dry vegetation. In times of high fire hazard (e.g., high wind or drought conditions), trucks may need to carry water and shovels or fire extinguishers in the field, or high-fire-risk installations (e.g., electric lines) may need to be delayed. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. No smoking or disposal of cigarette butts shall take place within vegetated areas.
- The introduction of exotic plant species shall be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention. A weed prevention and control plan will be drafted to address impacts and measures to reduce and eliminate the spread of weeds. Preventing exotic plants from entering the site via vehicular sources shall include measures such as implementing Trackclean or another method of vehicle cleaning for vehicles coming and going from the site. Earth-moving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for erosion control. Weed populations introduced into the site during construction shall be eliminated by chemical and/or mechanical means approved by BLM, CDFG, USFWS, and the California Invasive Plant Council (Cal-IPC).

BIO-G Implement the following mitigation measures, outlined below, to reduce the magnitude of these impacts to a less-than-significant level.

- The Project Biologist shall mark acceptable areas for construction-related activities.

- The Project Biologist shall mark with flagging any areas containing significant riparian vegetation that should be treated as exclusion areas during construction.
- The Project Biologist shall inspect all construction activities to ensure that exclusion areas are maintained.
- Fueling of equipment shall take place within existing paved roads and not within 300 feet of or adjacent to drainages.
- Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.

3.5.10 Residual Impacts After Mitigation

Biological resource impacts would be reduced to less than significant under CEQA, by implementation of the Mitigation Measures BIO-A through BIO-G.

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3.6 NOISE

This section describes the existing regulatory environment in the project area with respect to noise, the existing noise environment, and the potential noise impacts that could result from implementation of the Proposed Action and alternatives.

Noise Terminology

Noise is generally defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment. Noise levels are measured as decibels (dB) on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, doubling the energy of a noise source (e.g., traffic volume) would not double the noise level, but would instead increase noise levels by 3 dB. In addition, the human ear is not equally sensitive to all frequencies within the sound spectrum. Sound heard by the human ear is typically characterized by the “A weighted” sound level (dBA), which filters out noise frequencies not audible to the human ear, thereby weighting the frequencies audible by humans. Typical instantaneous noise levels of common activities can range from 0 dBA (the lowest threshold of human hearing) to 100 dBA (jet aircraft fly-over at 1,000 feet [Caltrans 1998]).

In addition to instantaneous noise levels, noise levels are measured and averaged over a period of time to assess noise limits and impacts. Typically, noise levels are averaged over 1 hour and expressed as dBA L_{eq} , the equivalent 1-hour noise level. Time of day is also an important factor for noise assessment; noise levels that may be acceptable during the day may interfere with the ability to sleep during evening or nighttime hours.

3.6.1 Relevant Laws, Regulations, and Plans

Projects in Imperial County are subject to Federal, State, and local laws, ordinances, regulations, and standards that apply to noise; those applicable to the proposed project are listed below.

Federal

The Noise Control Act, administered by U.S. Environmental Protection Agency (USEPA), sets performance standards for noise emissions from “major sources.” The Act also contains provisions for national noise standards for trains and motor carriers used in intra-state commerce. In response to Noise Control Act requirements, USEPA developed guidelines in 1974 to assist

State and local government entities in development of State and local ordinances, regulations, and standards for noise. There are no Federal laws governing off-site (community) noise (USEPA 1972).

The Federal Transit Administration (FTA) has guidelines for assessing ground-borne vibration impacts associated with construction of rail projects, which have been applied to other jurisdictions to other types of projects such as power plants. The FTA-recommended vibration standard is 65 VdB (velocity expressed as decibels) or peak particle velocity (ppv) of 0.002 inches per seconds (in/sec). The FTA threshold of architectural damage for conventional structures is 100 VdB or a ppv of 0.2 in/sec (Federal Transit Administration 2006).

USFWS has recommended a noise level of 60 dBA L_{eq} as the maximum permissible noise level to which certain noise-sensitive riparian bird species may be subjected to during the mating and nesting seasons.

California

California does not promulgate a Statewide noise standard, but requires that each county include a Noise Element within their General Plan for noise control.

CEQA requires that significant environmental impacts be identified, and that such impacts be eliminated or mitigated to the extent feasible. CEQA Guidelines suggests that noise changes in excess of standards, a substantial permanent increase above background, or a substantial temporary or periodic increase could be significant. Section XI of Appendix G of CEQA Guidelines (Cal. Code Regs., tit. 14, App. G) sets forth some thresholds that may signify a potentially significant impact.

Imperial County

General Plan Noise Element

The Noise Element of the Imperial County General Plan provides a program for incorporating noise issues into the land use planning process, with a goal of minimizing adverse noise impacts to noise-sensitive receptors. The Noise Element specifies construction hours and noise limits, and the acceptable property line operational noise levels at various land uses for day, evening, and night periods. The Noise Element also provides noise/land use compatibility guidelines for

siting noise-sensitive land uses in noise impact zones of roadways, airports, agricultural, and industrial facilities (County of Imperial 1993).

Noise Ordinance

Noise-generating sources in Imperial County are regulated under the County of Imperial Codified Ordinances, Title 9, Division 7 (Noise Abatement and Control) (County of Imperial Planning & Development Services 2007). Property line and construction noise limits are established in this ordinance. Property line noise limits apply to noise generation from one property to an adjacent property with a sensitive receptor (if no receptor, an exception or variance to the standards may be appropriate). These standards do not apply to construction noise. The County may act to restrict disturbing, excessive, or offensive noise that causes discomfort or annoyance to reasonable persons of normal sensitivity residing in an area.

Section 90702.00 Sound Level Limits states:

- A. It is unlawful for any person to cause noise by any means to the extent that the applicable 1-hour average sound level set out in the following table is exceeded, at any location in the County of Imperial on or beyond the boundaries of the property on which the noise is produced.

Total of Applicable Limits

Land Use Zone	Time of Day	1-Hour Average Sound Level (decibels)
1. Residential: All R-1	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
2. Residential: All R-2	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
3. Residential: R-3, R-4 and all other residential	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
4. All commercial	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
5. Manufacturing, all other industrial, including agricultural and extraction industry	(anytime)	70
6. General industrial	(anytime)	75

- B. The sound level limit between two zoning districts (different land uses) shall be measured at the property line between the properties.

- C. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of subsection A of this section, measured at or beyond 6 feet from the boundary of the easement upon which the equipment is located.
- D. This section does not apply to firework displays authorized by permit from the fire department, or other regulatory agency.
- E. This section does not apply to noise generated by helicopters at heliports or helistops authorized by a conditional use permit.
- F. This section does not apply to noise generated by standard agricultural field operating practices such as planting and harvesting of crop. The County of Imperial has a Right to Farm Ordinance (1031), which serves as recognition to agricultural practices to new development. Agricultural/industrial operations shall comply with the noise levels prescribed under the general industrial zones.
- G. This section shall not apply to any activity performed by a city or the County in the discharge of a governmental function or responsibility provided that such city or the County has applied reasonable noise mitigation (Prior code § 90702.00).

Section 90702.00 Subsection C addresses compliance for transmission facilities. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the property line noise limits of the ordinance, measured at or beyond 6 feet from the boundary of the easement upon which the equipment is located.

Construction noise from a single piece of equipment or a combination of equipment shall not exceed 75 dB L_{eq} , averaged over an 8-hour period, at the nearest sensitive receptor. This assumes a construction period of days or weeks, relative to an individual sensitive receptor. For extended length construction times, construction may not exceed 75 dB L_{eq} averaged over a 1-hour period. Construction equipment operation shall be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays.

3.6.2 Affected Environment

CEQA Significance Criteria

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:

- N-1** 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;
- N-2** Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels;
- N-3** A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- N-4** A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- N-5** For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- N-6** For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Existing Conditions

The project alignments are located on both Federal and non-Federal lands, surrounded by open space and agricultural areas. There are three potential routes for the transmission line, with the same endpoints and substation locations. The routes are in proximity to each other, in some locations sharing the same corridor. The Leibert Substation would be constructed at the southern end of the transmission route and the Dixieland substation at the northern end of the route would be expanded. The nearest community is Dixieland, located approximately 0.5 mile east of the project site; the City of El Centro is located approximately 10 miles east of the project site.

The ambient noise sources in the vicinity of the project alignments include agricultural, roadway, railroad, aircraft, and industrial operations. Agricultural operations can include field machinery, especially diesel engines; heavy trucks used for the delivery of supplies and the distribution of products; and aircraft, used for the spraying of crops. Vehicle traffic noise sources include several nearby minor roadways, including I-8, which intersects the project corridor. Rail traffic noise sources are the active freight railway lines, which intersect the project corridor near the Dixieland Substation. Additional noise sources along the project corridor may include aircraft flyovers for private, commercial, and military purposes. The Imperial County Municipal Airport is located approximately 10 miles east of Dixieland, and the El Centro Naval Air Facility is located approximately 5 miles east of Dixieland. Low-level aircraft noise includes crop spraying operations for agricultural operations.

Biological surveys for this project have identified special-status species and associated habitat in the vicinity of the project. Potential noise impacts to wildlife are assessed in Section 3.5, Biological Resources.

No baseline noise monitoring was required since the proposed project will generate temporary, short-term construction and operational noise, and there are no noise-sensitive receptors located in proximity to the project sites to be affected by project noise. Residences located in the general proximity of the substation improvements are currently exposed to noise levels from existing substation and the noise levels would not be noticeably increased as a result of operation of the project.

There are no public or private airstrips in the project area

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.

3.6.3 Environmental Effects for the Proposed Action

3.6.3.1 Direct and Indirect Effects

The Imperial County Noise Ordinance regulates construction noise and limits construction activities. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq} , averaged over an 8-hour period, at the nearest sensitive receptor. For extended length construction times, construction may not exceed 75 dB L_{eq} averaged over a 1-hour period. Construction equipment operation shall be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays.

During construction of the proposed project, noise levels in the vicinity of the project corridor would increase due to the operation of construction equipment and vehicles. Project construction activities would include foundation excavations of the supporting poles using a power auger or backhoe, pole placement using a crane and concrete mixing truck, haul trucks for material delivery, and fill and grading of pole footings using a backhoe. These construction vehicles and equipment can generate short-term maximum noise levels of approximately 89 dBA at a distance of 50 feet when the equipment is under maximum load. Concrete breaking can increase maximum noise levels to approximately 105 dBA at 50 feet. Due to the nature of the project's anticipated construction activity, with breaks and repositioning of equipment, hourly noise levels at 50 feet are assumed to average no more than 95 dBA L_{eq} from the center of an activity of each work area. Without concrete breaking, the other construction activities would likely generate average noise levels less than 85 dBA L_{eq} .

Vibration or groundborne noise would be generated during construction from the operation of heavy vehicles and machinery during site excavation and concrete breaking; however, no pile driving is anticipated. Operation of the constructed facilities would not generate any new vibration sources.

Construction vibration is dependent on the amount and type of construction and the distance between construction activities and the nearest vibration-sensitive receptor. With the exception of pile driving, construction equipment vibration levels from typical construction activities are below the threshold of annoyance at a distance greater than 25 feet.

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.

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 project 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.

3.6.3.2 CEQA Significance Determination

N-1 Expose of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies

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. Natural noise attenuation with distance would reduce 85 dBA L_{eq} to approximately 75 dBA L_{eq} at approximately 150 feet without noise barriers such as structures or topography. Thus, noise levels at the nearest residence would not exceed the County's Noise Ordinance construction noise level limit of 75 dBA L_{eq} averaged over an 8-hour period. This impact would be less than significant.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

Vibration or groundborne noise would be generated during construction from the operation of heavy vehicles and machinery during site excavation and concrete breaking; however, no pile driving is anticipated. Operation of the constructed facilities would not generate any new vibration sources.

Construction vibration is dependent on the amount and type of construction and the distance between construction activities and the nearest vibration-sensitive receptor. With the exception of pile driving, construction equipment vibration levels from typical construction activities are below the threshold of annoyance at a distance greater than 25 feet.

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. The groundborne vibrations associated with the project would be less than significant.

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

The project 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. The constructed facilities would produce some potential short-term noise during maintenance activities from personnel, equipment, and vehicles on the project site. No significant increase in ambient noise levels would occur following the completion of construction; thus, there would be a less-than-significant impact.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Construction activities would result in a temporary increase in ambient noise levels at the project sites. 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 Ordinance at the nearest residence during daytime activities. While there would be a temporary increase in ambient noise levels during construction, the impact would be less than significant because the magnitude would be less than the ordinance limits.

N-5 and N-6: There are no public or private airstrips in the project area; therefore these issues are not included discussed further.

3.6.4 Environmental Effects for Route Alternative 1

3.6.4.1 Direct and Indirect Effects

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. Natural noise attenuation with distance would reduce 85 dBA L_{eq} to approximately 75 dBA L_{eq} at approximately 150 feet without noise barriers such as structures or topography. Thus, noise levels at the nearest residence would not exceed the County's Noise Ordinance construction noise level limit of 75 dBA L_{eq} averaged over an 8-hour period. As such, Route Alternative 1 would not result in direct or indirect adverse effects to noise.

3.6.4.2 CEQA Significance Determination

- N-1 Expose of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies**

Impacts of 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. This is a less-than-significant impact.

- N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels**

The groundborne vibrations associated with Route Alternative 1 would be similar to the Proposed Action and would not result in significant impacts. This is a less-than-significant impact.

- N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project**

Route Alternative 1 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.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Route Alternative 1 would result in a temporary short-term increase in ambient noise levels in the project vicinity, similar to the Proposed Action. However, this increase would fall within the limits set under the County ordinance. This is a less-than-significant impact.

3.6.5 Environmental Effects for Route Alternative 2

3.6.5.1 Direct and Indirect Effects

Route Alternative 2 would be similar to the Proposed Action and Route Alternative 1 due to its similar location in a remote area without noise-sensitive receptors located in proximity to the alignment. Natural noise attenuation with distance would reduce 85 dBA L_{eq} to approximately 75 dBA L_{eq} at approximately 150 feet without noise barriers such as structures or topography. Thus, noise levels at the nearest residence would not exceed the County's Noise Ordinance construction noise level limit of 75 dBA L_{eq} averaged over an 8-hour period. As such, Route Alternative 2 would not result in direct or indirect adverse effects to noise.

3.6.5.2 CEQA Significance Determination

N-1 Expose of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies

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. This is a less-than-significant impact.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

The groundborne vibrations associated with Route Alternative 2 would be similar to Route Alternative 1 and the Proposed Action and would not result in significant impacts. This is a less-than-significant impact.

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

The project 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.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Route Alternative 2 would result in a temporary short-term increase in ambient noise levels in the project vicinity, similar to Route Alternative 1 and the Proposed Action. This is a less-than-significant impact.

3.6.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.6.6.1 Direct and Indirect Effects

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. 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.

3.6.6.2 CEQA Significance Determination

- N-1 Expose of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies**

Impacts of the Reduced Liebert Substation Alternative would 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.

- N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels**

The groundborne vibrations associated with the Reduced Liebert Substation Alternative would be similar to the Proposed Action and Route Alternatives 1 and 2 which would not result in significant impacts. This is a less-than-significant impact.

- N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project**

Similar to the Proposed Action and Route Alternatives 1 and 2, 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. 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.

- N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project**

The Reduced Liebert Substation Alternative would result in a temporary short-term increase in ambient noise levels in the project vicinity, similar to Route Alternative 1 and the Proposed Action. This is a less-than-significant impact.

3.6.7 Environmental Effects for the No Liebert Substation Alternative

3.6.7.1 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. 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.

3.6.7.2 CEQA Significance Determination

- N-1 Expose of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies**

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.

- N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels**

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.

- N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project**

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.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

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.

3.6.8 Environmental Effects for the No Action Alternative

3.6.8.1 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.

3.6.8.2 CEQA Significance Determination

N-1 Expose of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies

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 expose persons to or generate noise levels in excess of applicable noise standards. No impact would result.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

Under the No Action Alternative, the Proposed Action would not be implemented and the transmission line, supporting poles, and associated substations would not be constructed.

Therefore, the implementation of the No Action Alternative would not expose persons to or generate groundborne vibration or noise. No impact would result.

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

Under the No Action Alternative, the Proposed Action would not be implemented and the transmission line, supporting poles, and associated substations would not be constructed. Therefore, the implementation of the No Action Alternative would not cause a permanent increase in ambient noise. No impact would result.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Under the No Action Alternative, the Proposed Action would not be implemented and the transmission line, supporting poles, and associated substations would not be constructed. Therefore, the implementation of the No Action Alternative would not cause a temporary or periodic increase in ambient noise. No impact would result.

3.6.9 Mitigation Measures

No mitigation measures are required.

3.6.10 Residual Impacts After Mitigation

The impact noise would be less than significant.

3.7 AIR QUALITY

This section provides an analysis of air quality considerations for the Proposed Action and alternatives. The first part of this section describes the regulatory environment that is applicable to Imperial County and to the project specifically. A description of the affected environment as it pertains to air quality is provided, followed by a description of the air quality impacts associated with this project.

3.7.1 Relevant Laws, Regulations, and Plans

Air Quality Standards and Existing Concentrations

The Federal and State governments have each established their own ambient air quality standards. USEPA has established primary and secondary National Ambient Air Quality Standards (NAAQS) that specify allowable ambient concentrations for criteria pollutants under the provisions of the Clean Air Act (CAA). Primary NAAQS are established at levels necessary, with an adequate margin of safety, to protect the public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Similarly, secondary NAAQS specify the levels of air quality determined appropriate to protect the public welfare from any known or anticipated adverse effects associated with air contaminants. Allowable ambient concentrations are set for ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), lead (Pb), and sulfur dioxide (SO₂). Table 3.7-1 summarizes the NAAQS for these pollutants. The 8-hour O₃ and PM_{2.5} standards listed in the table were promulgated in 1997 but were challenged in the courts. In 2002, the courts upheld these two standards. USEPA made final designations for the 8-hour O₃ standards on April 15, 2004, and final designations for the new Federal PM_{2.5} standards in December 2004. Currently, USEPA and the states are working together to develop air quality plans to achieve compliance with the standards, where needed.

In California, the California Air Resources Board (CARB), which is part of the California Environmental Protection Agency, has promulgated ambient air quality standards for O₃, PM₁₀, PM_{2.5}, CO, NO₂, SO₂, and Pb that are more stringent than the USEPA standards (aka California Ambient Air Quality Standards [CAAQS]), as shown in Table 3.7-1. In 2002, CARB revised the State annual PM₁₀ standard and established an annual PM_{2.5} standard. These standards went into effect on July 7, 2004. In April of 2005, CARB approved a new 8-hour average standard for O₃, which has been implemented and in effect since early 2006. CARB has also developed standards for sulfates, hydrogen sulfide (H₂S), visibility reducing particulates, and vinyl chloride.

**Table 3.7-1
Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)*		0.075 ppm (147 µg/m ³)		
Respirable Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation*	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		--		
Fine Particulate Matter (PM _{2.5})	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	15.0 µg/m ³		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	None	Non-dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		--		
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	Gas Phase Chemilumin- escence	0.053 ppm (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 µg/m ³)		--		
Lead ^{8,9}	30 days average	1.5 µg/m ³	Atomic Absorption	--	--	--
	Calendar Quarter & Rolling 3- Month Average ⁹	--		1.5 µg/m ³ 0.15 µg/m ³	Same as Primary Standard	High Volume Sampler and Atomic Absorption
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	--	Ultraviolet Fluorescence	0.30 ppm (80 µg/m ³)	--	Spectro-photometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)	--	
	3 Hour	--		--	0.5 ppm (1300 µg/m ³)	
	1 Hour	0.25 ppm (655 µg/m ³)		--	--	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles of more (0.07–30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%. Method: Beta Attenuation and Transmittance through Filter Tape.		NO FEDERAL STANDARDS		
Sulfates	24 Hour	25 µg/m ³	Ion Chroma- tography	NO FEDERAL STANDARDS		
Vinyl Chloride ⁸	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chroma- tography	NO FEDERAL STANDARDS		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence	NO FEDERAL STANDARDS		

- ¹ California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM₁₀, PM_{2.5}, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
 - ² National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. For PM_{2.5}, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact USEPA for further clarification and current Federal policies.
 - ³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
 - ⁴ Any equivalent procedure which can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.
 - ⁵ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
 - ⁶ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
 - ⁷ Reference method as described by USEPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the USEPA.
 - ⁸ The ARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
 - ⁹ National lead standard, rolling 3-month average: final rule signed October 15, 2008.
- Source: California Air Resources Board (11/17/08)

Counties and metropolitan areas are classified as being in attainment or nonattainment with respect to these Federal and State ambient pollutant standards. An area’s classification is determined by comparing actual monitored air pollutant concentrations with State and Federal standards. More than 200 air monitoring stations are located in California and are part of the State and Local Air Monitoring Network. These stations are operated by CARB, local Air Pollution Control Districts (APCDs) or Air Quality Management Districts (AQMDs), private contractors, and the National Park Service (NPS). Areas that do not have sufficient data for a determination are given an “unclassified” designation and are not considered to be in nonattainment. To further classify the severity of the nonattainment status, the following five subcategories were created: marginal, moderate, serious, severe and extreme. The attainment dates for these areas were based upon this classification.

Regulatory Settings

USEPA, under the provisions of the CAA, requires each state with regions that have not attained the NAAQS to prepare a State Implementation Plan (SIP), detailing how these standards are to be met in each local area. The SIP is a legal agreement between each state and the Federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analysis. The regional analysis is performed by

the appropriate Metropolitan Planning Organization (MPO) and the project-level analysis by the project sponsor. The SIP is not a single document, but a compilation of new and previously submitted attainment plans, emissions reduction programs, district rules, state regulations, and Federal controls. Areas designated as serious nonattainment are required to achieve attainment by June 15, 2013. CARB is the lead agency for developing this SIP. Local air districts and other agencies prepare Air Quality Attainment Plans (AQAPs) or Air Quality Management Plans (AQMPs) and submit them to CARB for review, approval, and incorporation into the applicable SIP.

In 1976, the California Legislature adopted the Lewis Air Quality Management Act, which created AQMDs and APCDs. Though separate from Federal actions, the creation of AQMDs/APCDs became an integral part of conformity, which is described below. CARB oversees activities of the APCDs and regional AQMDs. The AQMDs and APCDs promulgate the strategies stated in the SIPs for achieving cleaner air quality on a region-by-region basis and provide technical assistance to the MPO and project sponsor for regional and project-level air quality analyses. The local APCD with jurisdiction over the proposed project is the Imperial County Air Pollution Control District (ICAPCD).

The 1990 Amendment to CAA Section 176 requires USEPA to promulgate rules to ensure that Federal actions conform to the appropriate SIP. These rules, known as the General Conformity Rule (40 C.F.R. Parts 51.850-51.860 and 93.150-93.160), require any Federal agency, responsible for an action in a Federal nonattainment or attainment/maintenance area, to demonstrate conformity to the applicable SIP, by either determining that the action is exempt from the General Conformity Rule requirements, or subject to a formal conformity determination.

Actions would be exempt, and thus conform to the SIP, if the total direct and indirect emissions of nonattainment or maintenance pollutants from the project's construction and operation activities would be less than the specified emission rate thresholds, known as *de minimis levels*, and that these emissions would be less than 10 percent of the area's annual emissions budget for the subject pollutants. If not determined exempt, a formal air quality conformity analysis would be required to determine conformity.

The proposed project is within the Salton Sea Air Basin (SSAB). The project area in the SSAB is currently designated as a moderate nonattainment area for the 8-hour NAAQS for O₃ and PM₁₀. The project area in the SSAB is in attainment with the NAAQS for the other applicable criteria pollutants. The *de minimis* emission thresholds used in a General Conformity Determination for

nonattainment and maintenance pollutants are specifically identified in the General Conformity Rule (GCR). The applicable *de minimis* thresholds for the proposed project area are as follows:

- SSAB
 - volatile organic compounds (VOCs) – 50 tons per year
 - oxides of nitrogen (NO_x) – 100 tons per year
 - PM₁₀ – 70 tons per year

Per Section 176(c) of the Clean Air Act Amendments of 1990, the lead agency must make a determination of whether the proposed project and project alternatives conform to the SIP. However, if the total direct and indirect emissions from the proposed project are below the GCR *de minimis* emission levels, then the proposed project would be considered exempt from performing a comprehensive General Conformity Analysis and Determination and would be considered conforming to the SIP. Otherwise, it has to be shown that the proposed project would not conflict with the goals and objectives of the SIP.

CARB oversees activities of local air quality management agencies and is responsible for incorporating AQAPs and AQMPs from local air districts into the SIP for USEPA approval. CARB also maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by CARB to classify air basins as being in attainment or nonattainment with respect to each pollutant and to monitor progress in attaining air quality standards.

The California CAA requires that each area exceeding the CAAQS for O₃, CO, SO₂, and NO₂ must develop a plan aimed at achieving those standards (California Health and Safety Code 40911 et seq.). The California Health and Safety Code, Section 40914, requires air districts to design a plan that achieves an annual reduction in district wide emissions of 5 percent or more, averaged every consecutive 3-year period. To satisfy this requirement, the AQMDs and APCDs have to develop and implement air pollution reduction measures, which are described in their AQAPs/AQMPs and outline strategies for achieving the CAAQS for any criteria pollutants for which the region is classified as nonattainment.

Air Quality Management Plan Conformance

ICAPCD

ICAPCD is currently in the process of developing two SIPs to address the nonattainment designation for O₃ and PM₁₀. The PM₁₀ SIP was approved by the Board of Directors in August 2009. The O₃ SIP is being revised to update the approved 1992 version with measures and strategies to demonstrate attainment with the 8-hour O₃ NAAQS. The Modified Air Quality Management Plan and the Reasonably Available Control Technology (RACT) SIP for O₃ were adopted by the IPACD in July 2010.

Local Air Quality

The ambient criteria pollutant monitoring stations closest to the proposed project site in Imperial County are located in Niland, El Centro, and Calexico. Table 3.7-2 summarizes the measured criteria pollutant concentrations over the past 3 years at these stations. The measured local concentrations and the health effects and other characteristics of O₃, PM₁₀, PM_{2.5}, CO, NO₂, and SO₂ are discussed below. Pb, sulfates, and H₂S are of least concern in this project area because levels are well below standards and no major sources of these pollutants exist in the project area.

As shown in Table 3.7-2, O₃ and PM₁₀ concentrations have exceeded Federal and State ambient air quality standards. It should be noted that air quality within the SSAB violates the State O₃ and PM₁₀ standards, which is contributed to air pollutants transported from the South Coast Air Basin (SCAB) to the northwest and from Mexico to the south. During the summer, southwesterly wind blows pollutants through the San Gorgonio Pass from the SCAB into Coachella Valley causing violations. Similarly, wind blowing in a northeast direction transports pollutants from Mexicali into Calexico.

Below are brief descriptions of the air pollutants regulated by Federal and State agencies.

Ozone

O₃ is a colorless gas that has a pungent odor and causes eye and lung irritation, visibility reduction, and crop damage. A primary constituent of smog, O₃ is formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving NO_x and reactive organic gases (ROG). Because these reactions occur on a regional scale, O₃ is considered a regional air

pollutant. Industrial fuel combustion and motor vehicles are primary sources of NO_x and ROG. Imperial County is designated as nonattainment for O₃.

**Table 3.7-2
Measured Pollutant Concentrations at Niland, El Centro,
and Calexico-Ethel Monitoring Stations***

Pollutant	Averaging Time	Units	Standards		Maximum Measured Concentration		
			Federal	State	2006	2007	2008
O ₃	1-hr	ppm	None	0.09	0.091 ⁽²⁾	0.091 ⁽²⁾	0.090 ⁽²⁾
	8-hr	ppm	0.075	0.070	0.081 ^(1,2)	0.082 ^(1,2)	0.085 ^(1,2)
PM ₁₀	24-hr	µg/m ³	150	50	113 ⁽²⁾	160 ^(1,2)	129.7 ⁽²⁾
	Annual Average	µg/m ³	50	20	34.7 ⁽²⁾	39.6 ⁽²⁾	37.1 ⁽²⁾
PM _{2.5}	24-hr	µg/m ³	35	None	33.8	30.5	26.7
	Annual Average	µg/m ³	15	12	17.3 ^(1,2)	23.2 ^(1,2)	NA ⁽³⁾
NO ₂	1-hr	ppm	None	0.18	0.066	0.071	0.048
	Annual Arithmetic Mean	ppm	0.053	0.030	0.011	0.011	0.008
CO	1-hr	ppm	35	20	14.3	2.5	2.5
	8-hr	ppm	9.0	9.0	2.7	1.7	1.7
SO ₂	1-hr	ppm	None	0.25	NA ⁽³⁾	NA ⁽³⁾	NA ⁽³⁾
	3-hr	ppm	0.5	None	NA ⁽³⁾	NA ⁽³⁾	NA ⁽³⁾
	24-hr	ppm	0.14	0.04	0.038	0.004	0.007
	Annual Arithmetic Mean	ppm	0.030	None	NA ⁽³⁾	NA ⁽³⁾	NA ⁽³⁾

¹ Exceeds the Federal standard

² Exceeds the State standard

³ NA= not available

*Monitoring stations are located at 7711 English Road, Niland, California, 150 9th Street, El Centro, California, and 1029 Ethel St. Calexico, California

Source: CARB ADAM website (2009) and USEPA AIR Data website (2009).

Particulate Matter

Particulate matter is generally composed of particles in the air such as dust, soot, aerosols, fumes, and mists. Of particular concern are inhalable particulates that have aerodynamic diameters of 10 micrometers or less (PM₁₀). A subgroup of these particulates is fine particulates (particles with aerodynamic diameters less than 2.5 micrometers, PM_{2.5}), which have very different characteristics, sources, and potential health effects than coarse particulates (particles with aerodynamic diameter between 2.5 to 10 micrometers). Coarse particulates are generated by sources such as windblown dust, agricultural fields, and dust from vehicular traffic on unpaved roads. PM_{2.5} is generally emitted from activities such as industrial combustion, vehicle exhaust, and residential wood-burning stoves and fireplaces. PM_{2.5} is also formed in the atmosphere when gases such as SO₂, NO_x, and VOCs emitted by combustion activities are transformed by

chemical reactions in the air. PM_{10} affects breathing and the respiratory system, and, in particular, can damage lung tissue and contribute to cancer and premature death. Separate standards for $PM_{2.5}$ were established in 1997 because these smaller particles can penetrate deep into the respiratory tract and cause their own unique adverse health effects.

Measured concentrations at the monitoring stations exceeded State PM_{10} 24-hour standards over the past 3 years and exceeded the Federal and State standards in year 2007 and 2008. These measured concentrations have contributed to the project area being classified as nonattainment for the Federal and State PM_{10} and $PM_{2.5}$ standards.

Carbon Monoxide

CO is an odorless, colorless gas that can impair the transport of oxygen in the bloodstream; aggravate cardiovascular disease; and cause fatigue, headache, confusion, and dizziness. CO forms through incomplete combustion of fuels in vehicles, wood stoves, industrial operations, and fireplaces. In Imperial County, vehicular exhaust is a major source of CO. Although the population in Imperial County comprises less than 1 percent of California's population, approximately 3 percent of vehicle miles within the State is from Imperial County. CO tends to dissipate rapidly into the atmosphere and consequently is generally a concern at the local level, particularly at major road intersections.

CO concentrations at these monitoring stations have been well below Federal and State 1-hour and 8-hour average standards. As such, Imperial County is classified as attainment with the CO standards.

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that can irritate the lungs, cause pneumonia, and lower the resistance to respiratory infections. NO_x , which includes NO_2 , is a key precursor to O_3 and acid rain. NO_x forms when fuel is burned at high temperatures, and principally comes from transportation sources and stationary fuel combustion sources such as electric utility and industrial boilers.

Table 3.7-2 shows that measured concentrations of NO_2 in the project vicinity have consistently remained well below the Federal and State standards. As such, Imperial County is designated as attainment with State and Federal standards.

Sulfur Dioxide

SO₂ is a colorless acidic gas with a strong odor. High concentrations of SO₂ affect breathing and may aggravate existing respiratory and cardiovascular disease. SO₂ is also a primary contributor to acid deposition, which causes acidification of lakes and streams and can damage trees, crops, building materials, and statues. In addition, sulfur compounds in the air can contribute to visibility impairment. The major source category for SO₂ is fuel-burning equipment combusting fossil fuels. Imperial County is designated as attainment with Federal and State SO₂ standards.

Toxic Air Contaminants (TACs)

Non-criteria air pollutants or TACs are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines and asbestos.

Asbestos is a type of fibrous mineral used in construction materials including cement pipe. Over time, exposure to friable asbestos can lead to health problems including asbestosis, lung cancer, and mesothelioma, a form of lung cancer uniquely attributed to long-term exposure to airborne asbestos. Exposure to asbestos is hazardous via inhalation.

Diesel particulate matter (DPM) is the most complex of diesel emissions. Diesel particulates, as defined by most emission standards, are sampled from diluted and cooled exhaust gases. This definition includes both solids and liquid material that condenses during the dilution process. The basic fractions of DPM are elemental carbon, heavy hydrocarbons derived from the fuel and lubricating oil, and hydrated sulfuric acid derived from the fuel sulfur. DPM contains a large portion of the polycyclic aromatic hydrocarbons (PAHs) found in diesel exhaust. Diesel particulates include small nuclei mode particles of diameters below 0.04 micrometers (µm) and their agglomerates of diameters up to 1µm. Ambient exposures to diesel particulates in California are significant fractions of total TAC levels in California.

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and sensitivity of receptors.

Greenhouse Gases and Global Climate Change

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern is that increases in GHGs are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. California Department of Water Resources is actively engaged in developing a set of water and flood management policies that will provide a comprehensive approach to climate change (California Urban Water Agencies 2007).

GHGs allow sunlight to enter the atmosphere but trap a portion of the outward-bound infrared radiation and warm up the air. The process is similar to the effect greenhouses have in raising the internal temperature; hence the name GHGs. Both natural processes and human activities emit GHGs. The accumulation of GHGs in the atmosphere regulates the earth's temperature; however, emissions from human activities such as electricity production and motor vehicles have elevated the concentration of GHGs in the atmosphere. This accumulation of GHGs has contributed to an increase in the temperature of the earth's atmosphere and contributed to global climate change. The principal GHGs are CO₂, methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H₂O). CO₂ is the reference gas for climate change because it gets the most attention and is considered the most important GHG. To account for the warming potential of GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂E). Large emission sources are reported in million metric tons of CO₂E (MMT_{CO2E}). HFCs are used in refrigeration systems as substitutes for chlorofluorocarbons (CFCs), which were banned for destroying the ozone layer.

A summary of the attainment status for Imperial County is provided in Table 3.7-3.

**Table 3.7-3
Imperial County Attainment Status**

Criteria Pollutant	State Designation	Federal Designation
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
PM ₁₀	Serious – Nonattainment	Serious – Nonattainment
PM _{2.5}	Unclassified	Unclassified/Attainment
O ₃ (8-hour)	Moderate – Nonattainment	Moderate – Nonattainment
Lead	Attainment	Not Applicable
Sulfates	Attainment	Not Applicable
H ₂ S	Unclassified	Not Applicable
Visibility Reducing PM	Unclassified	Not Applicable

Source: www.arb.ca.gov

3.7.2 Affected Environment

Methodology

To determine the significance of potential air quality impacts from implementation of the proposed project, the net increase in air pollutants associated with implementation were quantified and compared with applicable criteria pollutant significance thresholds for each air district and GCR *de minimis* levels. According to the construction schedule, the proposed project will be completed between June 2010 and early 2011. The power poles will be erected in a consecutive adjacent manner. It is assumed that up to six adjacent locations would be disturbed at any one time (i.e., prep work, pouring foundation, and erecting poles). As such, the air quality analysis assessed the significance of air quality impacts from disturbance of six locations at a time and not all simultaneously.

Construction Emissions

Construction of a transmission line follows the sequence of ROW, maintenance road construction, and structure sites clearing (including construction yards and foundation concrete mixing areas, or “batch plants”), installing foundations, assembling and erecting the structures, clearing, transferring existing wires, installing ground wires, installing ground rods, tying grounding between poles, and cleanup and site reclamation. Construction would be conducted in various phases to ensure efficiency and unnecessary delays, i.e., construction activities would occur at adjacent power pole locations to minimize equipment, workers, and impacts to the environment. Activities would occur in a strategic and sequential order (e.g., clearing and grubbing, site grading, drilling/augering for foundations, installation of footings, assembling new

power poles, and disassembling old power poles). This would require several construction crews operating simultaneously in adjacent locations to expeditiously install the power poles.

The construction, operation, and maintenance of the proposed transmission line would require that heavy vehicles access structure sites along the ROW. Use of existing City/County roads as well as use of maintenance roads within existing transmission line ROWs to the greatest extent possible is planned. The foundation excavation and installation process would require access to each location with the following equipment: a power auger or drill, a crane, material trucks, concrete ready-mix trucks, and employee vehicles.

Excavations for foundations would be made with power drilling equipment. Foundations will be excavated with a 2½- to-3-foot auger.

Foundations for monopoles with tangent and light angle structures will range in diameter size from 6 to 10 feet. Excavation depths will vary from 15 feet for tangent structures to 30 feet for light angle structures. After the hole is augured, poles will be set, backfilled, and tamped using existing spoils where suitable. Spoil material that cannot be used for fill will be dispersed around the area to produce a general grade.

Structure assembly and mounting of associated line hardware takes place at each site. In the case of direct embedded poles, after the foundation is set in place, the remaining pole sections are installed to create the appropriate joint. The steel arms along with the use of minor components, such as hardware, will then be installed preparing the structure for insulator and cable installation. Similar erection procedures apply for poles with drilled shaft foundations.

After the structures are erected, new insulators and hardware would be installed to each structure. The structures would be rigged with insulator strings at each ground wire and position conductor.

Construction for the substation components (Dixieland expansion and new Leibert Substation) would follow a similar construction process with foundation installation for the necessary poles completed then those poles installed.

Operation Emissions

Upon completion of the proposed project, the only change in operation emissions would be generated from maintenance vehicles used to periodically transport personnel during maintenance and any necessary repairs. Scheduled maintenance activities are assumed to be

minimal (e.g., once per year). As such, operation (i.e., long-term) air pollutant emissions generated from maintenance vehicles are expected to be negligible and considered to have less-than-significant air quality impacts.

CEQA Significance Criteria

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:

- AQ-1** Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?
- AQ-2** Would the proposed project violate any air quality standards or contribute substantially to an existing or projected air quality violation?
- AQ-3** 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)?
- AQ-4** Would the proposed project expose sensitive receptors to substantial pollutant concentrations?
- AQ-5** 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.

Local Requirements

ICAPCD

At the local level, ICAPCD regulates air quality by establishing local air quality regulations, permitting stationary sources, and planning activities related to air quality. ICAPCD is also responsible for enforcing and implementing Federal and State standards. Through its enhanced CEQA review process, ICAPCD has developed significance thresholds for land use projects that generate air pollutants as presented in the *CEQA Air Quality Handbook*, November 2007.

ICAPCD regulations are primarily focused on stationary sources, indirect sources, and Best Construction Management Practices (BCMPs) or Best Available Control Measures (BACMs) to minimize air pollutants within their jurisdiction. However, portable engines used during construction that are larger than 50 hp and that are not registered under the CARB Portable Equipment Registration Program (PERP) would need to obtain air operating permits from ICAPCD. PERP equipment will also need to be verified with ICAPCD staff for air permitting requirements.

Construction Activities

Air pollutants would be generated during construction (short-term) activities. ICAPCD recognizes the temporary, short-term increase of air pollutants during construction activities and recommends the implementation of effective and comprehensive mitigation measures to reduce air quality impacts. The mitigation measures are cited in ICAPCD Rules 800–806 of Regulation VIII, *Fugitive Dust Rules* (California Air Resources Board 2009). The intent of these rules is to limit the amount of visible emissions, including fugitive dust generated from construction activities to create adverse impacts to the community and worsen air quality in Imperial County. Although most of the proposed construction is located in remote, rural areas and is not expected to affect sensitive receptors, implementation of the applicable and feasible dust control measures cited in Regulation VIII would reduce emissions to a level considered less than significant. Projects with construction emissions below the thresholds (see Table 3.7-4) require adherence to the rules in Regulation VIII.

**Table 3.7-4
ICAPCD Significance Thresholds for Construction Activities**

Pollutant	Thresholds (lbs/day)
PM ₁₀	150 lbs/day
ROG	75 lbs/day
NO _x	100 lbs/day
CO	550 lbs/day

lbs/day = pounds per day

Operational Activities

ICAPCD provided significance pollutant thresholds for operational or long-term air pollutant emissions. Projects with the potential to generate emissions exceeding the thresholds would have a significant impact on air quality. If the project's impact exceeds any of the significance criteria, various mitigation measures are available depending on the nature of the air quality impact. Table 3.7-5 presents the significance thresholds for criteria pollutants during operational activities.

**Table 3.7-5
ICAPCD Significance Thresholds for Operational Activities**

Pollutant	Tier I (lb/day)	Tier II (lb/day)
NO _x and ROG	Less than 55 lbs/day	55 lbs/day and greater
PM ₁₀ and SO _x	Less than 150 lbs/day	150 lbs/day and greater
CO	Less than 550 lbs/day	550 lbs/day and greater
Level of Significance	Less Than Significant	Significant Impact
Level of Analysis	Initial Study	Comprehensive Air Quality Analysis Report
Environmental Document	Negative Declaration	MND or Environmental Impact Report (EIR)

As previously mentioned, operational emissions associated with the Proposed Action are expected to be primarily from maintenance vehicles and considered to be negligible. As such, operational emissions will be well below the significance thresholds presented in Table 3.7-5 and the project is considered to have less-than-significant air quality impacts.

The air quality impacts of this project are discussed below with regard to the applicable significance as described above.

Existing Conditions

Climate and Topography

Ambient air quality is generally affected by climatological conditions, the topography of the air basin, the type and amounts of pollutants emitted, and, for some pollutants, sunlight. The area of the proposed project is subject to a combination of topographical and climatic factors that create the potential for high concentrations of regional and local air pollutants. The following paragraphs describe relevant characteristics of the air basins that affect pollutant dispersion in the project area with subsections providing environmental rules and regulations. Within the subsections are also discussions of types of air pollutants, health effects, and existing air quality levels in general project vicinity.

The proposed project is in Imperial County, California. Imperial County is located within the SSAB. The SSAB consists of the western portion of Riverside County known as Coachella Valley and all of Imperial County.

Imperial County

Imperial County is located in the southeastern corner of California and surrounded by mountain ranges to the north and east with vast open land containing desert sand. It is bordered by Riverside County to the north, Mexico to the south, San Diego County to the west, and Arizona to the east. Imperial County is a desert community with warm, dry climate. Summers are extremely hot and dry while winters are temperate. The climatological station closest to the project site that monitors temperature is the Niland Station.¹ The monthly average temperature recorded between 1971 and 2008 at the Niland Station ranges from 59.4 degrees Fahrenheit (°F) in December to 95.4°F in August with annual average temperature of approximately 79°F. November and December are typically the coldest months in the Niland area. Average rainfall measured in the Niland area between 1971 and 2000 varied from 0.39 inch in August to 0.22 inch or less between April and July, with an average annual total of 3.22 inches. The high temperatures, combined with low humidity, produce hot, dry summers that contribute to the buildup of O₃ (a major constituent of smog).

¹ Western Regional Climatic Center web page. Available at <http://www.wrcc.dri.edu>.

3.7.3 Environmental Effects for the Proposed Action

3.7.3.1 Direct and Indirect Effects

Operation of the Proposed Action 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 result in a significant impact to the environment or conflict with an applicable plan to reduce GHG emissions. As such, the Proposed Action would not result in direct or indirect adverse effects to air quality.

3.7.3.2 CEQA Significance Determination

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan

Air quality plans are strategies designed to reduce long-term operational emissions and comply with the Federal and State ambient air quality standards. The operation of the proposed project 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. As previously mentioned, operation phase emissions are expected to be negligible and below significance thresholds, 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.

AQ-2 Violate air quality standards or contribute substantially to an existing or projected air quality violation

To determine whether implementation of proposed project would violate any air quality standards or contribute substantially to an existing or projected air quality violation, activities generating air pollutants were assessed. The majority of air pollutants would be generated during construction activities. Construction equipment exhaust emissions were quantified assuming that

only six consecutive power pole locations would be disturbed at any one time. Based on this assumption, construction equipment and number of workers were estimated using reasonable assumptions and experience with similar projects. Construction emissions were quantified using emission factors for off- and on-road mobile sources from SCAQMD's website. Daily and annual construction emissions were quantified for using construction timeline, type of equipment, quantity of equipment, hours of operation, and reasonable assumptions. Assumptions were made for data such as distance traveled by on-road vehicles (i.e., trucks hauling construction materials and workers' commute distance). Haul trucks and worker vehicles were assumed to travel a roundtrip distance of 60 miles. Appendix C provides a summary of the calculations and assumptions used. Table 3.7-6 summarizes these calculations for construction emissions and compares them to significance thresholds. Because the length of routes is approximately the same the assumptions for the preferred alternative are applicable for each of the other route alternatives and, as such, the values calculated for the preferred alternative are used for the alternative routes also.

**Table 3.7-6
Summary of Construction Emissions for Each Alternative**

	PM ₁₀		ROG		NO _x		CO	
	Daily (pounds per day)	Annual (tons per year)						
Proposed Action	104.7	9.21	12.4	1.1	97.6	8.6	57.9	5.1
Route Alternative 1	104.7	9.21	12.4	1.1	97.6	8.6	57.9	5.1
Route Alternative 2	104.7	9.21	12.4	1.1	97.6	8.6	57.9	5.1
No Action Alternative	0	0	0	0	0	0	0	0
ICAPCD Significance Thresholds	150	--	75	--	100	--	550	--
GCR de minimis Thresholds	--	70	--	50	--	100	--	

As indicated, daily construction emissions are well below the ICAPCD significance thresholds for construction activities; therefore, the Proposed Action 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, the Proposed Action 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, will further reduce fugitive dust emissions. These regulatory requirements include the following:

Standard Mitigation Measures for Construction Equipment

- a. Use alternative-fueled or catalyst-equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- b. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- c. Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
- d. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Standard Mitigation Measures for Fugitive PM₁₀ Control

- a. All disturbed areas, including bulk material storage that is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material such as vegetative ground cover.
- b. All on-site and off-site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- c. All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- d. The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material.

- e. All track-out or carry-out shall be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- f. Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water or chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- g. The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering.

As such, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations. This is a less than significant impact.

AQ-3 Cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable Federal or State AAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors)

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. This is a less-than-significant impact.

AQ-4 Expose sensitive receptors to substantial pollutant concentrations

Most of the proposed construction is 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 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. 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 Proposed Action would be less than significant.

AQ-5 Create objectionable odors that would affect a substantial amount of people

The use of diesel construction equipment during various construction phases may generate odors that are considered to be a nuisance. Diesel equipment emits a distinctive odor that may be considered offensive to certain individuals. These odors would be temporary and would not affect a substantial number of people. However, as previously mentioned, the transmission route is 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 the Proposed Action 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.

AQ-6 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Heavy-duty off-road equipment, materials transport, and worker commutes during construction of the proposed project would result in exhaust emissions of GHGs. GHG emissions generated by construction would be primarily in the form of carbon dioxide (CO₂). Although emissions of other GHGs, such as methane (CH₄) and nitrous oxide (N₂O), are important with respect to global climate change, the emission levels of these other GHGs from on- and off-road vehicles used during construction are relatively small compared with CO₂ emissions, even when factoring in the relatively larger global warming potential of CH₄ and N₂O.

Total project construction GHG emissions were estimated using the methodology for estimating emissions of criteria pollutants during project construction. Appendix C provides a summary of the calculations and assumptions used. Total project GHG emissions would be approximately 988 tons, which converts to approximately 896 metric tons of CO₂ equivalent (CO₂e).

The California Air Pollution Control Officers Association (CAPCOA) has published various screening thresholds for determining when a climate change analysis would be needed. CAPCOA recommends using the 900 metric tons of CO₂e per year screening criteria referenced in the CAPCOA white paper (CAPCOA 2008) for determining which projects require further

analysis and mitigation. If a project does not exceed 900 metric tons of CO₂e per year, then the climate change impacts would be less than significant.

At the time of this writing, no federal, state, regional, or local air quality regulatory agency has adopted a quantitative threshold of significance for construction-related GHG emissions. Many air districts recommend that construction emissions associated with a project be amortized over the life of the project (typically 30 years) and added to the annual operational emissions. Therefore, the total modeled construction-related GHG emissions of approximately 896 metric tons of CO₂e associated with the proposed project are divided by 30 years (approximately 29 metric tons of CO₂e per year). Since the proposed project generates negligible operational GHG emissions, the annual amortized construction GHG emissions (29 metric tons of CO₂e per year) were compared to the CAPCOA threshold (900 metric tons of CO₂e per year). As such, the annual project GHG emissions do not exceed the CAPCOA threshold.

Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be *less than significant*.

AQ-7 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As discussed for AQ-6, the proposed project does not exceed the CAPCOA threshold for GHG emissions. The approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions; the project's GHG emissions are below this threshold. The proposed project would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHGs. The impact would be *less than significant*.

3.7.4 Environmental Effects for Route Alternative 1

3.7.4.1 Direct and Indirect Effects

Similar to the Proposed Action, the operation of the transmission line under Route Alternative 1 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 Route Alternative 1, 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 Route Alternative 1 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 Route Alternative 1, 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, would result in a significant impact to the environment or conflict with an applicable plan to reduce GHG emissions.

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.

3.7.4.2 CEQA Significance Determination

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan

Similar to the Proposed Action, the operation of the transmission line under Route Alternative 1 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 Route Alternative 1 would be less than significant.

AQ-2 Violate air quality standards or contribute substantially to an existing or projected air quality violation

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 1, 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 adhere to ICAPCD Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. These regulatory requirements include the following:

Standard Mitigation Measures for Construction Equipment

- a. Use alternative-fueled or catalyst-equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- b. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- c. Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
- d. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Standard Mitigation Measures for Fugitive PM₁₀ Control

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

As such, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations. This is a less than significant impact.

AQ-3 Cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable Federal or State AAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors)

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 Route Alternative 1 is not expected to delay the attainment of the O₃ and PM₁₀ standards. This is a less than significant impact.

AQ-4 Expose sensitive receptors to substantial pollutant concentrations

Most of the construction that would be associated with Route Alternative 1 is 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 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. 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 Route Alternative 1 would be less than significant.

AQ-5 Create objectionable odors that would affect a substantial amount of people

The use of diesel construction equipment during various construction phases may generate odors that are considered to be a nuisance. Diesel equipment emits a distinctive odor that may be considered offensive to certain individuals. These odors would be temporary and would not affect a substantial number of people. Route Alternative 1 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 Route Alternative 1 would be less than significant.

AQ-6 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The GHG emissions associated with Route Alternative 1 would be approximate to the GHG of the Proposed Action. As such, the annual project GHG emissions do not exceed the CAPCOA threshold. Therefore, the Route 1 Alternative would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be *less than significant*.

AQ-7 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As discussed for AQ-6, Route Alternative 1 does not exceed the CAPCOA threshold for GHG emissions. The approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. Therefore, Route Alternative 1 would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHGs. The impact would be *less than significant*.

3.7.5 Environmental Effects for Route Alternative 2

3.7.5.1 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.

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 adhere to ICAPCD

Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. As such, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations.

Most of the construction emissions, including odors, which would be associated with Route Alternative 2 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 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. 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, result in a significant impact to the environment or conflict with an applicable plan to reduce GHG emissions.

Route Alternative 2 would have similar effects to construction and operational emissions associated with criteria pollutants, odors, and GHG as the Proposed Action. As such, Route Alternative 2 would not result in direct or indirect adverse effects to air quality.

3.7.5.2 CEQA Significance Determination

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan

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 Route Alternative 2 would be less than significant.

AQ-2 Violate air quality standards or contribute substantially to an existing or projected air quality violation

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 adhere to ICAPCD Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. These regulatory requirements include the following:

Standard Mitigation Measures for Construction Equipment

- a. Use alternative-fueled or catalyst-equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- b. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- c. Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
- d. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Standard Mitigation Measures for Fugitive PM₁₀ Control

- a. All disturbed areas, including bulk material storage that is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material such as vegetative ground cover.
- b. All on-site and off-site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.

- c. All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- d. The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material.
- e. All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- f. Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water or chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- g. The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering.

As such, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations. This is a less-than-significant impact.

AQ-3 Cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable Federal or State AAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors)

The Imperial County 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 Route Alternative 2 is not expected to delay the attainment of the O₃ and PM₁₀ standards. This is a less-than-significant impact.

AQ-4 Expose sensitive receptors to substantial pollutant concentrations

Most of the construction that would be associated with Route Alternative 2 is 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 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. 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 Route Alternative 2 would be less than significant.

AQ-5 Create objectionable odors that would affect a substantial amount of people

The use of diesel construction equipment during various construction phases may generate odors that are considered to be a nuisance. Diesel equipment emits a distinctive odor that may be considered offensive to certain individuals. These odors would be temporary and would not affect a substantial number of people. 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 Route Alternative 2 would be less than significant.

AQ-6 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The GHG emissions associated with the Route Alternative 2 would be approximate to the GHG of the Proposed Action. As such, the annual project GHG emissions do not exceed the CAPCOA threshold. Therefore, the Route 2 Alternative would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be *less than significant*.

AQ-7 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As discussed for AQ-6, Route Alternative 2 does not exceed the CAPCOA threshold for GHG emissions. The approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. Therefore, Route Alternative 2 would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHGs. The impact would be *less than significant*.

As discussed above, Route Alternative 2 would have similar effects to construction and operational emissions associated with criteria pollutants, odors, and GHG as the Proposed Action. As such, Route Alternative 2 would not result in direct or indirect adverse effects to air quality.

3.7.6 Environmental Effects for the Reduced Liebert Substation Alternative**3.7.6.1 Direct and Indirect Effects**

Similar to the Proposed Action, the operation of the transmission line under the Reduced 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 Reduced 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 Reduced 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 Reduced 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, result in a significant impact to the environment or conflict with an applicable plan to reduce GHG emissions.

The Reduced 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 Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to air quality.

3.7.6.2 CEQA Significance Determination

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan

Similar to the Proposed Action, the operation of the transmission line under the Reduced 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. Therefore, air quality impacts from operation of the Reduced Liebert Substation Alternative would be less than significant.

AQ-2 Violate air quality standards or contribute substantially to an existing or projected air quality violation

Under the Reduced Liebert Substation Alternative, 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. Construction impacts would be similar to the Proposed Action. 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 the Reduced 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.

Although construction emissions will not cause significant air quality impact, implementation of BCMPs and adhere to ICAPCD Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. As such, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations. This is a less than significant impact.

AQ-3 Cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable Federal or State AAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors)

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 Reduced Liebert Substation Alternative is not expected to delay the attainment of the O₃ and PM₁₀ standards. This is a less than significant impact.

AQ-4 Expose sensitive receptors to substantial pollutant concentrations

Most of the construction that would be associated with the Reduced Liebert Substation Alternative is 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 this 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. Thus, impacts from construction and operation of the Reduced Liebert Substation Alternative would be less than significant.

AQ-5 Create objectionable odors that would affect a substantial amount of people

The use of diesel construction equipment during various construction phases may generate odors that are considered to be a nuisance. Diesel equipment emits a distinctive odor that may be considered offensive to certain individuals. These odors would be temporary and would not affect a substantial number of people. The Reduced 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 Reduced Liebert Substation Alternative would be less than significant.

AQ-6 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The GHG emissions associated with the Reduced Liebert Substation Alternative would be approximate to the GHG of the Proposed Action. As such, the annual project GHG emissions do not exceed the CAPCOA threshold. Therefore, the Reduced Liebert Substation Alternative would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be *less than significant*.

AQ-7 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As discussed for AQ-6, Reduced Liebert Substation Alternative does not exceed the CAPCOA threshold for GHG emissions. The approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG

emissions. Therefore, Reduced Liebert Substation Alternative would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHGs. The impact would be *less than significant*.

3.7.7 Environmental Effects for the No Liebert Substation Alternative

3.7.7.1 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.

As with criteria pollutants, GHG emissions would occur primarily during project construction, and would be less than the CAPCOA GHG threshold. Because those emissions would be temporary in nature and minor in magnitude, result in a significant impact to the environment or conflict with an applicable plan to reduce GHG emissions.

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.

3.7.7.2 CEQA Significance Determination

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan

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. Therefore, air quality impacts from operation of the No Liebert Substation Alternative would be less than significant.

AQ-2 Violate air quality standards or contribute substantially to an existing or projected air quality violation

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. Construction impacts would be similar to the Proposed Action. 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 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.

Although construction emissions will not cause significant air quality impact, implementation of BCMPs and adhere to ICAPCD Regulation VIII, Fugitive Dust, will further reduce fugitive dust emissions. As such, emissions occurring during peak construction activities are temporary and not expected to contribute to existing or projected air quality violations. This is a less than significant impact.

AQ-3 Cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable Federal or State AAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors)

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 this alternative is not expected to delay the attainment of the O₃ and PM₁₀ standards. This is a less than significant impact.

AQ-4 Expose sensitive receptors to substantial pollutant concentrations

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

AQ-5 Create objectionable odors that would affect a substantial amount of people

The use of diesel construction equipment during various construction phases may generate odors that are considered to be a nuisance. Diesel equipment emits a distinctive odor that may be considered offensive to certain individuals. 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.

AQ-6 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The GHG emissions associated with the No Liebert Substation Alternative would be approximate to the GHG of the Proposed Action. As such, the annual project GHG emissions do not exceed the CAPCOA threshold. Therefore, the No Liebert Substation Alternative would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be *less than significant*.

AQ-7 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As discussed for AQ-6, the No Liebert Substation Alternative does not exceed the CAPCOA threshold for GHG emissions. The approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. Therefore, the No Liebert Substation Alternative would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHGs. The impact would be *less than significant*.

3.7.8 Environmental Effects for the No Action Alternative

3.7.8.1 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 air quality would result.

3.7.8.2 CEQA Significance Determination

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan

Under the No Action Alternative, there would be no construction activities or project operations that would have any conflict with air quality plans in the project area. No impact would result.

AQ-2 Violate air quality standards or contribute substantially to an existing or projected air quality violation

There would be no emissions of criteria pollutants under the No Action Alternative because there would be no construction activities or new operations. No impact would result.

AQ-3 Cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable Federal or State AAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors)

There would be no emissions of criteria pollutants under the No Action Alternative and thus no contribution to cumulative pollutant levels. No impact would result.

AQ-4 Expose sensitive receptors to substantial pollutant concentrations

There would be no emissions of criteria pollutants under the No Action Alternative because there would be no construction activities or new operations. No impact to sensitive receptors would result.

AQ-5 Create objectionable odors that would affect a substantial amount of people

Because there would be no construction activities or new operations associated with this alternative, there would be no creation of objectionable odors. No impact would result.

AQ-6 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Under this alternative, there would be no generation of GHGs because no construction activities or new operations would occur. Therefore, this alternative would not generate GHG emissions,

either directly or indirectly, that may have a significant impact on the environment. No impact would result.

AQ-7 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

Under this alternative, there would be no generation of GHGs because no construction activities or new operations would occur. Therefore, this alternative would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHGs. . No impact would result.

3.7.9 Mitigation Measures

No mitigation measures are required.

3.7.10 Residual Impacts After Mitigation

The impact to air quality would be less than significant.

3.8 HYDROLOGY AND WATER QUALITY

This section presents information on surface and groundwater resources conditions within the project vicinity and identifies potential hydrology and water quality impacts resulting from the construction and operation of the Proposed Action and associated alternatives.

3.8.1 Relevant Laws, Regulations, and Plans

Federal

Executive Order 11988, Floodplain Management

Executive Order 11988 on Floodplain Management addresses concerns over about the potential loss of the natural and beneficial functions of the nation's floodplains as well as the increased cost to Federal, State, and local governments from flooding disasters that are worsened by unwise development of the floodplain. When funding actions, Federal agencies are required to avoid, to the extent possible, the long - and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

Executive Order 11990, Protection of Wetlands

This executive order addresses impacts on wetlands from Federal actions. The order requires Federal agencies to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

Clean Water Act

The Federal Clean Water Act is the basis for regulatory tools designed to reduce the discharge of pollutants into waterways. It requires states to identify water bodies and set water quality standards such that existing designated uses can be maintained. Section 401 of the Clean Water Act requires the State Water Resources Control Board (SWRCB) or RWQCB to issue a water quality certification when a project requires a Federal permit under the Clean Water Act to discharge pollutants.

Section 402 establishes the NPDES for the discharge of any pollutant into waters of the United States. Under Section 402, SWRCB or RWQCB may issue an NPDES permit that allows

discharge of pollutants as long as the discharge does not reduce water quality below the adopted water quality standards.

State

Porter-Cologne Act of 1969

The Porter-Cologne Act requires regional compliance with State water quality plans adopted by the SWRCB. RWQCBs prepare water quality plans for nine regions in California. The plans identify the beneficial uses of water that should be protected, establish water quality objectives, and define an implementation program to meet water quality objectives. The Proposed Action would potentially affect areas within the Colorado River Basin Region (Region 7).

Regional

The Colorado River Basin Water Quality Control Plan (Basin Plan), in accordance with criteria contained in the California Porter-Cologne Water Quality Control Act, the Federal Clean Water Act, and other pertinent State and Federal rules and regulations, provides definitive guidelines and gives direction to the full scope of regional board activities that serve to optimize the beneficial uses of the State waters within the Colorado River Basin Region of California by preserving and protecting the quality of these waters. The Basin Plan lists and defines the various beneficial water uses; describes the water quality that must be maintained to support such uses; describes the programs, projects, and other actions that are necessary to achieve the standards established within the Basic Plan; and summarizes the various plans and policies that protect water quality (Colorado River Basin Regional Water Quality Control Board 2006).

3.8.2 Affected Environment

CEQA Significance Criteria

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

- WQ-1** Violate any water quality standards or waste discharge requirements.
- WQ-2** 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).

- WQ-3** 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.
- WQ-4** 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.
- WQ-5** 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.
- WQ-6** Otherwise substantially degrade water quality.
- WQ-7** 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.
- WQ-8** Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- WQ-9** 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.
- WQ-10** Inundation by seiche, tsunami, or mudflow.

The Proposed Action is located within the Salton Sea Transboundary Watershed (USGS Hydrologic Unit 18100200) within the Colorado River Basin Region. It encompasses one-third of the region (about 8,360 square miles). Most of the watershed is in Imperial County. The watershed has been identified as a Category I (impaired) Watershed under the 1997 California Unified Watershed Assessment (Colorado River Basin Regional Water Quality Control Board 2009).

The northern end of the Proposed Action is located approximately 20 miles southwest of the Salton Sea. The Salton Sea is California's largest lake in surface area. Its surface elevation lies below sea level, and it has no outlets. The recipient of much of the accumulated agricultural

runoff from Imperial Valley, the Salton Sea sustains a high salinity level. The sea supports a variety of fish and wildlife, but continued inflows of polluted freshwater may compromise its ability to do so.

There are numerous canals adjacent to the east of the project area. The Foxglove Canal and Westside Main Canal run generally north to south, and the basic alignment of the proposed project travels a similar route to the west of the canal system. These canals are the easternmost canal system that serves the irrigated cropland of the Imperial Valley and forms a general boundary with cropland to the east and desert to the west. There are multiple agricultural drainages that connect with the canals, located to the east of the canal system.

Throughout the project corridor there are multiple washes, generally aligned east/west, that intersect the transmission line alignment. Washes crossed by the project alignment include the Yuha Wash and one other unnamed wash. These drainages have associated 100-year flood hazard areas that would be crossed by the transmission alignment (FEMA 2009).

The project is located in an inland area that is not vulnerable to tsunamis. The closest body of water that could be potentially subject to seiches is the Salton Sea, which is approximately 20 miles away; thus, the project area is not be subject to seiche events. Lastly, this project is located in slightly undulating terrain that has minimal, if any, potential for mudflow events because of the lack of any appreciable elevation variation in the terrain that could lend itself to such events.

3.8.3 Environmental Effects for the Proposed Action

3.8.3.1 Direct and Indirect Effects

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 Proposed Action would not require any groundwater extraction during construction or operation. The only permanent impervious surfaces that would be created would be the small footprints of the new poles and some areas associated with the substation components.

The Proposed Action would not result in a substantial increase in impervious surfaces; only small isolated areas of permanent impervious surfaces would be located at the substation and pole locations. No streams or rivers would be physically affected by the Proposed Action. The areas where ground disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of vegetation; however, vegetation throughout the project area is generally sparse and areas of temporary impact would be returned to their original state. Any additional runoff would be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition. The drainage patterns would continue to function as they do in their existing condition.

The Proposed Action 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.

The Proposed Action would not result in substantial temporary or permanent increases in water runoff. The project alignment is located through mainly vacant open space areas that are not served by storm water drainage systems. Near I-8, the project would be designed to avoid interference with the interstate drainage system. As described in previous discussions, the project would create only minimal areas of impervious surface that could generate new quantities of runoff. The project does not include components that would typically generate substantial amounts of polluted runoff, such as large paved roads, impervious parking lots, outdoor chemical storage, or other potential sources. Any runoff generated during construction activities would be managed in accordance with an approved SWPPP, and the project would result in no impacts to existing storm water drainage systems.

At two locations, the ID Line would cross over 100-year flood hazard areas associated with the Yuha Wash and an unnamed wash (FEMA 2009). The Proposed Action would 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 Proposed Action would not result in the placement of people in areas subject to flooding. The majority of the Proposed Action components are located in areas of vacant open space with minimal flooding hazard. Engineering of the transmission poles near a 100-year flood hazard area would result in structures generally able to resist hydrostatic and hydrodynamic loads and

effects of buoyancy. The Proposed Action is not located in an area susceptible to seiches, tsunami, or mudflows.

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.

3.8.3.2 CEQA Significance Determination

WQ-1 Violate any water quality standards or waste discharge requirements

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. Implementing best management practices for construction site management, which would be contained and detailed in the SWPPP, would result in a less-than-significant impact to water quality standards and waste discharge requirements.

WQ-2 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

The Proposed Action would not require any groundwater extraction during construction or operation. The only permanent impervious surfaces that would be created would be the small footprints of the new poles and some areas associated with the substation components. No impact to groundwater supplies or recharge would occur.

WQ-3 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

The Proposed Action would not result in a substantial increase in impervious surfaces; only small isolated areas of permanent impervious surfaces would be located at the substation and pole locations. No streams or rivers would be physically affected by the Proposed Action. The areas where ground disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of vegetation; however, vegetation throughout the project area is generally sparse and areas of temporary impact would be returned to their original state. Any additional runoff would be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition. The drainage patterns would continue to function as they do in their existing condition, and the project would result in a less-than-significant impact to drainage or erosion.

WQ-4 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

The Proposed Action 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.

WQ-5 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

The Proposed Action would not result in substantial temporary or permanent increases in water runoff. The project alignment is located through mainly vacant open space areas that are not served by storm water drainage systems. Near I-8, the project would be designed to avoid interference with the interstate drainage system. As described in previous discussions, the project would create only minimal areas of impervious surface that could generate new quantities of runoff. The project does not include components that would typically generate substantial amounts of polluted runoff, such as large paved roads, impervious parking lots, outdoor chemical storage, or other potential sources. Any runoff generated during construction activities would be managed in accordance with an approved SWPPP, and the project would result in no impacts to existing storm water drainage systems and less-than-significant impacts to storm water quality.

WQ-6 Otherwise substantially degrade water quality

As described above, the Proposed Action 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 by the Proposed Action. There are no project components that create or require large volumes of water or wastewater. Thus, the extent of Proposed Action impacts on water quality is minimal. The Proposed Action would result in less-than-significant impacts to water quality.

WQ-7 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

The Proposed Action 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.

WQ-8 Place within a 100-year flood hazard area structures that would impede or redirect flood flows

At two locations, the ID Line would cross over 100-year flood hazard areas associated with the Yuha Wash and an unnamed wash (FEMA 2009). The Proposed Action would 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. Transmission pole structures would have a less-than-significant impact on flood flows.

WQ-9 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

The Proposed Action would not result in the placement of people in areas subject to flooding. The majority of the Proposed Action components are located in areas of vacant open space with minimal flooding hazard. Engineering of the transmission poles near a 100-year flood hazard area would result in structures generally able to resist hydrostatic and hydrodynamic loads and effects of buoyancy. 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.

WQ-10 Inundation by seiche, tsunami, or mudflow

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

3.8.4 Environmental Effects for Route Alternative 1

3.8.4.1 Direct and Indirect Effects

As described for the Proposed Action, Route Alternative 1 would require small, isolated areas of impervious surfaces associated with the two substations (totaling 15.6 acres) and individual pole locations (totaling 0.11 acre) 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 Route Alternative 1 would not require any groundwater extraction during construction or operation. Implementation of Route Alternative 1 would not require the alteration of the drainage pattern or any streams or rivers, in the project area. Only very minimal (0.11 acre) impervious surfaces associated with the pole footprints would be created as part of this project.

Route Alternative 1 does not include any housing, permanent or temporary, as part of the scope of activity. At two locations, the Route Alternative 1 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. Route Alternative 1 is not located in an area susceptible to seiches, tsunami, or mudflows.

As discussed above, 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.

3.8.4.2 CEQA Significance Determination

WQ-1 Violate any water quality standards or waste discharge requirements

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 best management practices. Thus, Route Alternative 1 would result in a less-than-significant impact to water quality standards and waste discharge requirements.

WQ-2 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

The Route Alternative 1 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.

WQ-3 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

Similar to the Proposed Action, Route Alternative 1 would not result in a substantial increase in impervious surfaces. No streams or rivers would be physically affected and the areas where ground disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of the sparse vegetation within the project footprint. Any additional runoff will be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition. The drainage patterns would continue to function as they do in their existing condition, and Route Alternative 1 would result in a less-than-significant impact to drainage or erosion.

WQ-4 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

Implementation of Route Alternative 1 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.

WQ-5 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

As described for the Proposed Action, Route Alternative 1 would not result in substantial temporary or permanent increases in water runoff. 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. Any runoff generated during construction activities would be managed in accordance with an approved SWPPP, and Route Alternative 1 would result in no impacts to existing storm water drainage systems and less-than-significant impacts to storm water quality.

WQ-6 Otherwise substantially degrade water quality

As described above for the Proposed Action, Route Alternative 1 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. Route Alternative 1 would result in less-than-significant impacts to water quality.

WQ-7 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

Route Alternative 1 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.

WQ-8 Place within a 100-year flood hazard area structures that would impede or redirect flood flows

At two locations, the Route Alternative 1 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.

WQ-9 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

As described for the Proposed Action, Route Alternative 1 would not result in the placement of people in areas subject to flooding. The majority of the Route Alternative 1 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.

WQ-10 Inundation by seiche, tsunami, or mudflow

Route Alternative 1 is not located in an area susceptible to seiches, tsunami, or mudflows. No impacts would result from Route Alternative 1.

3.8.5 Environmental Effects for Route Alternative 2

3.8.5.1 Direct and Indirect Effects

As with the Proposed Action, Route Alternative 2 would require small, isolated areas of impervious surfaces associated with the two substations (totaling 15.6 acres) and individual pole locations (totaling 0.12 acre) 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 Route Alternative 2 would not require any groundwater extraction during construction or operation or result in a substantial increase in impervious surfaces. No streams or rivers would be physically affected and the areas where ground

disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of the sparse vegetation within the project footprint. Any additional runoff would be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition.

Route Alternative 2 does not include any housing, permanent or temporary, as part of the scope of activity. At two locations, the Route Alternative 2 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.

Route Alternative 2 would have similar effects to groundwater supplies and recharge, drainage, and surface runoff as the Proposed Action. Although a portion of the alignment of Route Alternative 2 is adjacent to the Foxglove Canal, the project would not discharge water into the canal or have any connection into the canal system. As such, Route Alternative 2 would not result in direct or indirect adverse effects to hydrology and water quality.

3.8.5.2 CEQA Significance Determination

WQ-1 Violate any water quality standards or waste discharge requirements

As 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 best management practices. Thus, Route Alternative 2 would result in a less-than-significant impact to water quality standards and waste discharge requirements.

WQ-2 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

The Route Alternative 2 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.

WQ-3 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

Similar to the Proposed Action, Route Alternative 2 would not result in a substantial increase in impervious surfaces. No streams or rivers would be physically affected and the areas where ground disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of the sparse vegetation within the project footprint. Any additional runoff would be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition. The drainage patterns would continue to function as they do in their existing condition, and Route Alternative 2 would result in a less-than-significant impact to drainage or erosion.

WQ-4 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

Implementation of Route Alternative 2 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.

WQ-5 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

As described for the Proposed Action, Route Alternative 2 would not result in substantial temporary or permanent increases in water runoff. 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. A portion of the alignment of Route Alternative 2 is adjacent to the Foxglove Canal; however,

the project would not discharge water into the canal or have any connection into the canal system. The project does not include components that would typically generate substantial amounts of polluted runoff. Any runoff generated during construction activities would be managed in accordance with an approved SWPPP, and Route Alternative 2 would result in no impacts to existing storm water drainage systems and less-than-significant impacts to storm water quality.

WQ-6 Otherwise substantially degrade water quality

As described above for the Proposed Action, Route Alternative 1 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. Route Alternative 2 would result in less-than-significant impacts to water quality.

WQ-7 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

Route Alternative 2 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.

WQ-8 Place within a 100-year flood hazard area structures that would impede or redirect flood flows

At two locations, the Route Alternative 2 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.

WQ-9 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

As described for the Proposed Action, Route Alternative 2 would not result in the placement of people in areas subject to flooding. The majority of the Proposed Action components are located in areas of vacant open space with minimal flooding hazard. The alignment of Route Alternative 2 is adjacent to the Westside Main Canal and Foxglove Canal; however, there is no floodway hazard area associated with the canal (FEMA 2009). 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.

WQ-10 Inundation by seiche, tsunami, or mudflow

Route Alternative 2 is not located in an area susceptible to seiches, tsunami, or mudflows. No impacts would result from Route Alternative 2.

3.8.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.8.6.1 Direct and Indirect Effects

As described for the Proposed Action, the Reduced Liebert Substation Alternative would require small, isolated areas of impervious surfaces associated with the two substations (totaling 4.87 acres) and individual pole locations (totaling 0.12 acre) 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 Reduced Liebert Substation Alternative would not require any groundwater extraction during construction or operation. Implementation of the Reduced 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 Reduced Liebert Substation Alternative does not include any housing, permanent or temporary, as part of the scope of activity. At two locations, the Reduced 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 Reduced Liebert Substation Alternative is not located in an area susceptible to seiches, tsunami, or mudflows.

As discussed above, the Reduced Liebert Substation Alternative would have similar effects to groundwater supplies and recharge, drainage, and surface runoff as the Proposed Action. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to hydrology and water quality.

3.8.6.2 CEQA Significance Determination

WQ-1 Violate any water quality standards or waste discharge requirements

As described for the Proposed Action, the Reduced 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. Thus, the Reduced Liebert Substation Alternative would result in a less-than-significant impact to water quality standards and waste discharge requirements.

WQ-2 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

The Reduced 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.

WQ-3 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

Similar to the Proposed Action, the Reduced Liebert Substation Alternative would not result in a substantial increase in impervious surfaces. No streams or rivers would be physically affected and the areas where ground disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of the sparse vegetation within the project footprint. Any additional runoff will be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition. The drainage patterns would continue to

function as they do in their existing condition, and the Reduced Liebert Substation Alternative would result in a less-than-significant impact to drainage or erosion.

WQ-4 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

Implementation of the Reduced 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.

WQ-5 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

As described for the Proposed Action, the Reduced Liebert Substation Alternative would not result in substantial temporary or permanent increases in water runoff. 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. Any runoff generated during construction activities would be managed in accordance with an approved SWPPP, and the Reduced Liebert Substation Alternative would result in no impacts to existing storm water drainage systems and less-than-significant impacts to storm water quality.

WQ-6 Otherwise substantially degrade water quality

As described above for the Proposed Action, the Reduced 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 Reduced Liebert Substation Alternative would result in less-than-significant impacts to water quality.

WQ-7 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

The Reduced 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.

WQ-8 Place within a 100-year flood hazard area structures that would impede or redirect flood flows

At two locations, the Reduced 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.

WQ-9 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

As described for the Proposed Action, the Reduced Liebert Substation Alternative would not result in the placement of people in areas subject to flooding. The majority of the Reduced 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.

WQ-10 Inundation by seiche, tsunami, or mudflow

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

3.8.7 Environmental Effects for the No Liebert Substation Alternative

3.8.7.1 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 substation expansion (totaling 1.2 acres) and individual pole locations (totaling 0.12 acre) 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.

3.8.7.2 CEQA Significance Determination

WQ-1 Violate any water quality standards or waste discharge requirements

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. Thus, the No Liebert Substation Alternative would result in a less-than-significant impact to water quality standards and waste discharge requirements.

WQ-2 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

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.

WQ-3 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

Similar to the Proposed Action, the No Liebert Substation Alternative would not result in a substantial increase in impervious surfaces. No streams or rivers would be physically affected and the areas where ground disturbance would occur are generally flat and drainage patterns would not be substantially altered. Construction activities may result in temporary removal of the sparse vegetation within the project footprint. Any additional runoff will be managed in accordance with an approved SWPPP required for the project, and the site would be returned to the same condition and quality as the existing condition. 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.

WQ-4 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

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.

WQ-5 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

Similar to the Proposed Action, the No Liebert Substation Alternative would not result in substantial temporary or permanent increases in water runoff. 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. 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.

WQ-6 Otherwise substantially degrade water quality

As described above for the Proposed Action, 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.

WQ-7 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

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.

WQ-8 Place within a 100-year flood hazard area structures that would impede or redirect flood flows

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.

WQ-9 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

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.

WQ-10 Inundation by seiche, tsunami, or mudflow

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.

3.8.8 Environmental Effects for the No Action Alternative

3.8.8.1 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 or water quality would result.

3.8.8.2 CEQA Significance Determination

WQ-1 Violate any water quality standards or waste discharge requirements

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.

WQ-2 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

The No Action Alternative would not result in extraction of groundwater or cause changes to the conditions related to groundwater recharge as no facilities would be constructed. No impact to groundwater supplies or recharge would occur.

WQ-3 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

No construction activities or permanent changes would result with the No Action Alternative. Drainage patterns would not be altered in any way and no impact to erosion or siltation would result.

WQ-4 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

No construction activities or permanent changes would result with the No Action Alternative. Drainage patterns would not be altered in any way and no impact to flooding on- or off-site would result.

WQ-5 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

No construction activities or permanent changes would occur with the No Action Alternative and no new runoff would be generated. No impact to storm water drainage systems or increased polluted runoff would result.

WQ-6 Otherwise substantially degrade water quality

The No Action Alternative would not require construction and no changes to the existing hydrologic conditions would result. Therefore, the No Action Alternative would not impact water quality.

WQ-7 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

The No Action Alternative does not include any housing, permanent or temporary. No impact would occur to or within the 100-year floodplain from the placement of housing.

WQ-8 Place within a 100-year flood hazard area structures that would impede or redirect flood flows

The No Action Alternative would not construct any structures and no impact to 100-year flood hazard areas would result.

WQ-9 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

No new structures or facilities would be constructed under the No Action Alternative. No impact to people or structures as a result of flooding would result.

WQ-10 Inundation by seiche, tsunami, or mudflow

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

3.8.9 Mitigation Measures

No mitigation measures are required.

3.8.10 Residual Impacts After Mitigation

The impact to hydrology and water quality would be less than significant.

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3.9 HEALTH AND SAFETY / HAZARDOUS MATERIALS

This section presents information on health and safety and hazardous materials conditions within the project vicinity and identifies potential impacts resulting from the construction and operation of the Proposed Action and alternatives. Information regarding hazardous material sites in the project vicinity is taken from a regulatory records search titled Environmental FirstSearch Report (Track Info Services 2009).

3.9.1 Relevant Laws, Regulations, and Plans

Federal

Comprehensive Environmental Response, Compensation, and Liability Act

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 in response to the contamination found at an abandoned factory site at Love Canal, New York (42 USC 9601 et seq.). CERCLA established requirements for remediation of closed, abandoned hazardous waste sites; provided liability for persons responsible for release of hazardous substances at these sites; and provided that the Federal government is the lead agent for the cleanup of hazardous substances, pollutants, or contaminants identified at its sites. CERCLA was amended in 1986 to clarify Federal responsibilities for remediating contamination found at its sites.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) included provisions appropriating funds to Federal agencies for the remediation of contamination on Federal sites (10 USC 2701 et seq.). SARA pertains primarily to emergency management of accidental releases. It requires formation of State and local emergency planning committees, which are responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the “right-to-know” provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

State

California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in California. The HWCL implements RCRA as a “cradle-to-grave” waste management system in California. The HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds Federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by Federal law with RCRA.

California Code of Regulations

Most State and Federal regulations and requirements that apply to generators of hazardous waste are spelled out in CCR, Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators; transporters; and treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in 40 CFR 260 et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substance Control regulates hazardous waste more stringently than USEPA, the integration of California and Federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of

waste types and waste management activities than the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste, and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR Title 26 “Toxics.” However, the California hazardous waste regulations are still commonly referred to as Title 22.

Local

Imperial County Policies and Regulations

With few exceptions, County of Imperial has adopted the Uniform Fire Code regulations pertaining to hazardous materials. These regulations are provided in Title 8, Chapter 8.20, Uniform Fire Code Adoption of the County’s ordinance.

3.9.2 Affected Environment

Methodology

Hazardous Materials

Hazardous materials are defined as any injurious substance, including pesticides, herbicides, toxic metal and chemicals, explosives, and nuclear fuels and materials. In addition, hazardous waste can be considered a hazardous material. Hazardous waste has properties that make it potentially dangerous or harmful to human health or the environment. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products such as cleaning fluids (solvents) or pesticides.

Hazardous materials may be released through spilling, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. The use of these hazardous materials is commonplace in commercial, industrial, and manufacturing activities, and many businesses are permitted to handle and transport hazardous materials, such as dry cleaners and automotive businesses. USEPA and other Federal, State, and County regulatory agencies closely monitor these businesses and the disposition of hazardous materials. Hazardous materials require special methods of disposal, storage, and treatment, and the release of hazardous materials requires an immediate response to protect human health and safety,

and/or the environment. Improper disposal can harm the environment and people who work in the waste management industry.

The use of hazardous material is also common during construction activities. Hazardous materials may be used or stored on construction sites. Typical hazardous materials associated with construction activities include fuels, solvents, oils, lubricants, paints, cleaners, and other similar chemicals.

Regulatory Records Review

Pursuant to Government Code Section 65962.5 (Public Resources Code Section 21092.6), available Standard Environmental Record Sources from Federal and State regulatory agency databases were reviewed to identify use, generation, storage, treatment, and/or disposal of hazardous materials and chemicals or release incidents of such materials that may have impacted areas along the proposed transmission corridor and substations. The regulatory database search (included as Appendix D) examined an area that encompassed the proposed transmission line alignment as well as the two alternative alignments, and the surrounding area within a 0.5-mile radius. The hazardous material sites identified by this search include:

- CERCLA sites (i.e., Superfund sites), which include sites where there is no further remedial action planned (NFRAP) and sites eligible for the National Priority List (NPL) (sites in this category are recorded by the Comprehensive Environmental Response, Compensation, and Liability Information System [CERCLIS])
- RCRA sites, which include corrective action sites (i.e., CORRACTS)
- Voluntary Clean-Up Program (VCUP) sites
- Underground Storage Tank (UST) sites and Leaking Underground Storage Tank (LUST) sites
- State/Tribal Lands Solid Waste Facilities
- State Permits

The database search identified no hazardous material sites within 0.5 mile of the transmission corridor and substations.

Other Health and Safety Issues

Schools

The closest schools located within the project vicinity are Westside Elementary School, located approximately 1.5 miles from the middle portion of the transmission corridor, and Seeley School (kindergarten through 8th grade) in Seeley, California, located approximately 5 miles from the Dixieland Substation.

Airports

The closest public airports within the vicinity of the project are the Imperial County Airport, which is approximately 12 miles northeast of the Dixieland Substation, and the Calexico International Airport, located approximately 12 miles to the southeast of the Imperial Substation. The closest private airports within the vicinity of the project are the Douthitt Strip, which is located more than 11 miles northeast of the Imperial Substation, and the private Johnson Brothers Airport, located more than 9 miles to the southeast of the Imperial Substation.

The Naval Air Facility (NAF) El Centro is located approximately 6 miles northeast of the Dixieland Substation. NAF El Centro is used for realistic training for active and reserve aviation units and activities of the Navy's operating and training forces. This air facility is used only for military operations and is not a public facility.

Emergency Evacuation

The work areas associated with the transmission corridor and substations are located in relatively remote locations that would be primarily accessed by maintenance and farm roads, which are not major evacuation or emergency routes. I-8 serves as a major east/west transportation corridor for the region and is critical to emergency operations.

Wildland Fires

According to the Fire Hazards Severity Zone Maps prepared by the California Department of Forestry and Fire Protection (2007), the project site is not located within or near areas designated as high or very high fire hazard severity zones. The transmission alignment and substations are located in sparsely vegetated open desert where the threat of wildfire is considered low.

CEQA Significance Criteria

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

- HM-1** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- HM-2** 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.
- HM-3** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- HM-4** 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.
- HM-5** For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport result in a safety hazard for people residing or working in the project area.
- HM-6** For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- HM-7** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- HM-8** 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.

3.9.3 Environmental Effects for the Proposed Action

3.9.3.1 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. 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.

3.9.3.2 CEQA Significance Determination

HM-1 Significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

Material that is transported, stored, or disposed of during project activities and construction has the potential to contain hazardous materials and could present a hazard to construction workers, the public, or the environment if improperly managed. 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. IID will also implement its standard operational procedures and protocols (Rules & Regulations for the Implementation of the California Environmental Quality Act), including best management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. Therefore, the Proposed Action would result in less-than-significant impacts related to this issue.

HM-2 Significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

No significant risk of accidental upset or the release of hazardous substances is anticipated with the Proposed Action. Numerous safety systems that substantially minimize the risk of upset and ignition of flammable materials are integrated into the IID electrical distribution system, including linked circuit breakers to cut off electrical power as a heat source or accelerant prior to attaining flash point, enclosed and isolated equipment locations within the substation site, and routine maintenance and troubleshooting of equipment and structures. In addition, through contracting requirements and staff safety training IID would ensure compliance with applicable rules and regulations and implement standard operational procedures and protocols to reduce potential impacts relative to hazardous materials.

HM-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As described in Section 3.9.2, there are no schools located within one-quarter mile of the Proposed Action. Therefore, no impacts are anticipated related to hazardous emissions and school sites.

HM-4 Significant hazard to the public or the environment from being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

As described in Section 3.9.2, a review of Federal and State standard and supplemental databases covered under Government Code Section 65962.5 did not identify any hazardous material sites that occur directly within the project alignment or substation sites where project activities would occur. Furthermore, 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.

HM-5 Safety hazard for people residing or working in the project area from being 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

As described in Section 3.9.2, 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.

HM-6 Safety hazard for people residing or working in the project area from private airstrips

As described in Section 3.9.2, the project site is not located within 2 miles of a private airstrip and would not result in a safety hazard for people residing or working in the project area. 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. Therefore, no impacts would result.

HM-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

The majority of the Proposed Action would be implemented well away from heavily traveled public streets and highways that may be used in an emergency situation. Many of the roads near the Proposed Action alignment are rural in nature and used mostly for agricultural purposes and would not serve as evacuation routes during an emergency. 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 project would require the transmission line to cross over I-8, which is a major regional transportation corridor and could be used as a primary evacuation route during an emergency situation. The general construction and operation of transmission lines over the interstate would not interfere with the use of this transportation corridor for emergency purposes. However, in the unlikely event of the electrical lines being downed on the interstate during an emergency situation, this could potentially interfere with the use of the road for evacuation or emergency response purposes. If a line were downed on the interstate, IID would be able to quickly shut off power to this line and ensure there were no safety hazards and that the roadway would be

obstructed for only a minimal amount of time. As described in Section 1.3, IID would be required to work with Caltrans regarding ROW encroachment and adhere to all safety standards and procedures related to transmission line crossings.

Equipment and materials will be transported to the site using public roadways, but construction activities will not require any road closures or detours. Traffic would be able to pass through construction areas at all times. For these reasons, less-than-significant impacts to emergency response or evacuation plans would result.

HM-8 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

Project activities would occur within sparsely vegetated open desert that are not typically subject to wildfires and are not located adjacent to urbanized areas. As described in Section 3.9.2, the project area is not located in an area defined as high risk for fire hazards. Numerous safety systems that substantially minimize the risk of potential fire ignition are integrated into the IID electrical distribution system, including linked circuit breakers to cut off electrical power as a heat source or accelerant prior to attaining flash point, enclosed and isolated equipment locations within the substation site, and routine maintenance and troubleshooting of equipment and structures. The risk of wildland fires in the project area is considered low and impacts related to exposure of people or structures to wildland fires are considered less than significant.

3.9.4 Environmental Effects for Route Alternative 1

3.9.4.1 Direct and Indirect Effects

As discussed in further detail below, Route Alternative 1 would have similar effects to safety and hazards as the Proposed Action. 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 Route Alternative 1 and no hazardous material sites were identified within 0.5 mile of the project area. Route Alternative 1 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, Route Alternative 1 would not result in direct or indirect adverse effects to health and safety/hazardous materials.

3.9.4.2 CEQA Significance Determination

HM-1 Significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

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. Through contracting requirements and staff safety training IID would implement standard operational procedures and protocols, including best management practices, 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.

HM-2 Significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

As described for the Proposed Action, numerous safety systems that substantially minimize the risk of upset and ignition of flammable materials are integrated into the IID electrical distribution system, and IID would ensure compliance with applicable rules and regulations and implement its standard operational procedures and protocols to reduce potential impacts of Route Alternative 1 relative to hazardous materials to less-than-significant levels.

HM-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As described in Section 3.9.2, there are no schools located within one-quarter mile of the Route Alternative 1 alignment. Therefore, no impacts are anticipated related to hazardous emissions and school sites.

HM-4 Significant hazard to the public or the environment from being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

As described in Section 3.9.2, a review of Federal and State standard and supplemental databases covered under Government Code Section 65962.5 did not identify any hazardous material sites that occur directly within the Route Alternative 1 alignment or substation sites where project activities would occur. Furthermore, 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.

HM-5 Safety hazard for people residing or working in the project area from being 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

As described in Section 3.9.2, the nearest public airport facility is more than 10 miles from the project area and Route Alternative 1 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.

HM-6 Safety hazard for people residing or working in the project area from private airstrips

As described in Section 3.9.2, the Route Alternative 1 project alignment is not located within 2 miles of a private airstrip and would not result in a safety hazard for people residing or working in the project area. 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. Therefore, no impacts would result.

HM-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

Analysis presented for the Proposed Action is also applicable to Route Alternative 1. The majority of the project would be implemented away from heavily traveled public roadways and located in open space areas that are not densely developed and would not require significant evacuation operations in an emergency situation. Route Alternative 1 would also require a crossing over I-8, which could be a potential hazard in the unlikely event of the lines going down during an emergency situation. If a line were downed on the interstate, IID would be able to quickly shut off power to this line and ensure there were not safety hazards. IID would be required to work with Caltrans regarding ROW encroachment and adhere to all safety standards and procedures related to transmission line crossings. Similar to the Proposed Action, construction activities would not require road closures or detours and traffic would be able to pass through construction areas at all times. For these reasons, less-than-significant impacts to emergency response or evacuation plans would result.

HM-8 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

As described for the Proposed Action, project activities within Route Alternative 1 would occur within areas not typically subject to wildfires and are not located adjacent to urbanized areas. Numerous safety systems that substantially minimize the risk of potential fire ignition are integrated into the IID electrical distribution system. The risk of wildland fires in the project area is not considered to be high and impacts related to exposure of people or structures to wildland fires are considered less than significant.

3.9.5 Environmental Effects for Route Alternative 2

3.9.5.1 Direct and Indirect Effects

As discussed in further detail below, Route Alternative 2 would have similar effects to safety and hazards as the Proposed Action. 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 Route Alternative 2 and no hazardous material sites were identified within 0.5 mile of the project area. Route Alternative 2 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, Route Alternative 2 would not result in direct or indirect adverse effects to health and safety/hazardous materials.

3.9.5.2 CEQA Significance Determination

HM-1 Significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

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 hazardous materials. IID would be required to adhere to all Federal, State, and local requirements regarding the handling and disposal of hazardous materials. Through contracting requirements and staff safety training IID would implement standard operational procedures and protocols, including best management practices, 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.

HM-2 Significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

As described for the Proposed Action, numerous safety systems that substantially minimize the risk of upset and ignition of flammable materials are integrated into the IID electrical distribution system and IID would ensure compliance with applicable rules and regulations and implement its standard operational procedures and protocols to reduce potential impacts of Route Alternative 2 relative to hazardous materials to less-than-significant levels.

HM-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As described in Section 3.9.2, there are no schools located within one-quarter mile of the Route Alternative 2 alignment. Therefore, no impacts are anticipated related to hazardous emissions and school sites.

HM-4 Significant hazard to the public or the environment from being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

As described in Section 3.9.2, a review of Federal and State standard and supplemental databases covered under Government Code Section 65962.5 did not identify any hazardous material sites that occur directly within the Route Alternative 2 alignment or substation sites where project activities would occur. Furthermore, 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.

HM-5 Safety hazard for people residing or working in the project area from being 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

As described in Section 3.9.2, the nearest public airport facility is more than 10 miles from the project area and Route Alternative 2 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.

HM-6 Safety hazard for people residing or working in the project area from private airstrips

As described in Section 3.9.2, the Route Alternative 2 project alignment is not located within 2 miles of a private airstrip and would not result in a safety hazard for people residing or working in the project area. 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. Therefore, no impacts would result.

HM-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

Analysis presented for the Proposed Action is also applicable to Route Alternative 2. The majority of the project would be implemented away from heavily traveled public roadways and located in open space areas that are not densely developed and would not require significant evacuation operations in an emergency situation. Route Alternative 2 would also require a crossing over I-8, which could be a potential hazard in the unlikely event of the lines going down during an emergency situation. If a line were downed on the interstate, IID would be able to quickly shut off power to this line and ensure there were not safety hazards. IID would be required to work with Caltrans regarding ROW encroachment and adhere to all safety standards and procedures related to transmission line crossings. Similar to the Proposed Action, construction activities would not require road closures or detours and traffic would be able to pass through construction areas at all times. For these reasons, less-than-significant impacts to emergency response or evacuation plans would result.

HM-8 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

Similar to the Proposed Action, project activities within Route Alternative 2 would occur within areas not typically subject to wildfires and are not located adjacent to urbanized areas. Numerous safety systems that substantially minimize the risk of potential fire ignition are integrated into the IID electrical distribution system. The risk of wildland fires in the project area is not considered to be high and impacts related to exposure of people or structures to wildland fires are considered less than significant.

3.9.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.9.6.1 Direct and Indirect Effects

As discussed in further detail below, the Reduced Liebert Substation Alternative would have similar effects to safety and hazards as the Proposed Action. 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 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 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 Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to health and safety/ hazardous materials.

3.9.6.2 CEQA Significance Determination

HM-1 Significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

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. Through contracting requirements and staff safety training IID would implement standard operational procedures and protocols, including best management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. Therefore, the Reduced Liebert Substation Alternative would result in less-than-significant impacts related to this issue.

HM-2 Significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

As described for the Proposed Action, numerous safety systems that substantially minimize the risk of upset and ignition of flammable materials are integrated into the IID electrical distribution system, and IID would ensure compliance with applicable rules and regulations and implement its standard operational procedures and protocols to reduce potential impacts of Reduced Liebert Substation Alternative relative to hazardous materials to less-than-significant levels.

HM-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As described in Section 3.9.2, there are no schools located within one-quarter mile of the Reduced Liebert Substation Alternative alignment. Therefore, no impacts are anticipated related to hazardous emissions and school sites.

HM-4 Significant hazard to the public or the environment from being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

As described in Section 3.9.2, a review of Federal and State standard and supplemental databases covered under Government Code Section 65962.5 did not identify any hazardous material sites that occur directly within the Reduced Liebert Substation Alternative alignment or substation sites where project activities would occur. Furthermore, 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.

HM-5 Safety hazard for people residing or working in the project area from being 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

As described in Section 3.9.2, the nearest public airport facility is more than 10 miles from the project area and Reduced Liebert Substation Alternative 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.

HM-6 Safety hazard for people residing or working in the project area from private airstrips

As described in Section 3.9.2, the Reduced Liebert Substation Alternative project alignment is not located within 2 miles of a private airstrip and would not result in a safety hazard for people

residing or working in the project area. 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. Therefore, no impacts would result.

HM-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

Analysis presented for the Proposed Action is also applicable to the Reduced Liebert Substation Alternative. The majority of the project would be implemented away from heavily traveled public roadways and located in open space areas that are not densely developed and would not require significant evacuation operations in an emergency situation. The Reduced Liebert Substation Alternative would also require a crossing over I-8, which could be a potential hazard in the unlikely event of the lines going down during an emergency situation. If a line were downed on the interstate, IID would be able to quickly shut off power to this line and ensure there were not safety hazards. IID would be required to work with Caltrans regarding ROW encroachment and adhere to all safety standards and procedures related to transmission line crossings. Similar to the Proposed Action, construction activities would not require road closures or detours and traffic would be able to pass through construction areas at all times. For these reasons, less-than-significant impacts to emergency response or evacuation plans would result.

HM-8 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

As described for the Proposed Action, project activities within the Reduced Liebert Substation Alternative would occur within areas not typically subject to wildfires and are not located adjacent to urbanized areas. Numerous safety systems that substantially minimize the risk of potential fire ignition are integrated into the IID electrical distribution system. The risk of wildland fires in the project area is not considered to be high and impacts related to exposure of people or structures to wildland fires are considered less than significant.

3.9.7 Environmental Effects for the No Liebert Substation Alternative

3.9.7.1 Direct and Indirect Effects

As discussed in further detail below, the No Liebert Substation Alternative would have similar effects to safety and hazards as the Proposed Action. The operation of the expanded substation 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 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 Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to health and safety/ hazardous materials.

3.9.7.2 CEQA Significance Determination

HM-1 Significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

As described for the Proposed Action, typical use of hazardous materials may be required during construction activities. The operation of the expanded substation 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. Through contracting requirements and staff safety training IID would implement standard operational procedures and protocols, including best management practices, to reduce potential impacts relative to the transport, use, or disposal of hazardous materials. Therefore, the No Liebert Substation Alternative would result in less-than-significant impacts related to this issue.

HM-2 Significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

As described for the Proposed Action, numerous safety systems that substantially minimize the risk of upset and ignition of flammable materials are integrated into the IID electrical distribution system, and IID would ensure compliance with applicable rules and regulations and implement its standard operational procedures and protocols to reduce potential impacts of No Liebert Substation Alternative relative to hazardous materials to less-than-significant levels.

HM-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As described in Section 3.9.2, there are no schools located within one-quarter mile of the No Liebert Substation Alternative alignment. Therefore, no impacts are anticipated related to hazardous emissions and school sites.

HM-4 Significant hazard to the public or the environment from being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

As described in Section 3.9.2, a review of Federal and State standard and supplemental databases covered under Government Code Section 65962.5 did not identify any hazardous material sites that occur directly within the No Liebert Substation Alternative alignment or substation sites where project activities would occur. Furthermore, 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.

HM-5 Safety hazard for people residing or working in the project area from being 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

As described in Section 3.9.2, the nearest public airport facility is more than 10 miles from the project area and No Liebert Substation Alternative 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.

HM-6 Safety hazard for people residing or working in the project area from private airstrips

As described in Section 3.9.2, the No Liebert Substation Alternative project alignment is not located within 2 miles of a private airstrip and would not result in a safety hazard for people residing or working in the project area. 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. Therefore, no impacts would result.

HM-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

Analysis presented for the Proposed Action is also applicable to the No Liebert Substation Alternative. The majority of the project would be implemented away from heavily traveled public roadways and located in open space areas that are not densely developed and would not require significant evacuation operations in an emergency situation. The No Liebert Substation Alternative would also require a crossing over I-8, which could be a potential hazard in the unlikely event of the lines going down during an emergency situation. If a line were downed on the interstate, IID would be able to quickly shut off power to this line and ensure there were not safety hazards. IID would be required to work with Caltrans regarding ROW encroachment and adhere to all safety standards and procedures related to transmission line crossings. Similar to the Proposed Action, construction activities would not require road closures or detours and traffic would be able to pass through construction areas at all times. For these reasons, less-than-significant impacts to emergency response or evacuation plans would result.

HM-8 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

As described for the Proposed Action, project activities within the No Liebert Substation Alternative would occur within areas not typically subject to wildfires and are not located

adjacent to urbanized areas. Numerous safety systems that substantially minimize the risk of potential fire ignition are integrated into the IID electrical distribution system. The risk of wildland fires in the project area is not considered to be high and impacts related to exposure of people or structures to wildland fires are considered less than significant.

3.9.8 Environmental Effects for the No Action Alternative

3.9.8.1 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/hazardous materials would result.

3.9.8.2 CEQA Significance Determination

HM-1 Significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

The No Action Alternative would not involve any construction or modified operations that would require the transport, use, or disposal of hazardous materials. There would be no change in the risk of exposure of the public or environment to hazardous materials. Potential impacts would be limited to the existing minimal risks related to ongoing maintenance activities along the transmission line. Therefore, the No Action Alternative would result in no impacts related to this issue.

HM-2 Significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

No construction activities or altered operation of the existing substations would occur with the No Action Alternative that might cause a hazard to the public or environment due to accidental release of hazardous material into the environment. Potential impacts would be limited to the existing minimal risks related to ongoing maintenance activities along the transmission line. No impact would result.

HM-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

The No Action Alternative would not involve any construction or modified operations that would require the handling or emission of hazardous materials within one-quarter mile of a school. Therefore, no impacts related to hazardous emissions and school sites would result.

HM-4 Significant hazard to the public or the environment from being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

The No Action Alternative would not involve any construction or modified operation to existing facilities; thus, no impacts related to hazardous materials sites would result.

HM-5 Safety hazard for people residing or working in the project area from being 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

There would be no construction or operation of new facilities under the No Action Alternative that could cause a safety hazard due to proximity to aircraft operation at a public airport. Therefore, no impacts are anticipated to occur related to this issue.

HM-6 Safety hazard for people residing or working in the project area from private airstrips

There would be no construction or operation of new facilities under the No Action Alternative and there would be no safety hazard for people residing or working in the project area from private airstrips. Therefore, no impact would result.

HM-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

Under the No Action Alternative, no construction activities, including movement of construction equipment and materials on public roadways, would occur. There would be no modification to existing facilities. For this reason, there would be no potential for interference with an emergency response plan or evacuation plan. No impacts would result.

HM-8 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

There would be no construction or operation of new facilities under the No Action Alternative; thus, there would be no impacts related to exposure of people or structures to wildland fires.

3.9.9 Mitigation Measures

No mitigation measures are required.

3.9.10 Residual Impacts After Mitigation

The impact to health and safety and hazardous materials would be less than significant.

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3.10 CULTURAL RESOURCES

This section describes cultural resource issues associated with the Proposed Action and alternatives. A description of relevant laws, regulations, and plans is provided to address the regulatory setting for the project. This section describes past cultural resources surveys in this area and survey efforts specifically conducted in support of the project. An impact analysis section is provided that describes the potential impacts of the Proposed Action, Route Alternatives 1 and 2, the Reduced Liebert Substation Alternative, the No Liebert Substation Alternative, and the No Action Alternative to cultural resources.

3.10.1 Relevant Laws, Regulations, and Plans

Ground disturbing actions on public and split-estate lands may cause direct adverse impacts to cultural resources through the damage or destruction of cultural resources or the disturbance of the stratigraphic context in which they are located. Indirect adverse impacts may be created from increased accessibility to resources leading to looting or vandalism activities. Land tenure adjustments may result in the loss of significant cultural resources to the public if resources pass from public ownership. As such, under FLPMA and NEPA, Federal actions and land tenure adjustments that may impact or result in a loss of cultural resources on public or split-estate lands must take these potential impacts into consideration.

Federal, state, and local laws and regulations, including the National Historic Preservation Act (NHPA) (42 USC Section 4332), NEPA (Title 42, USC sections 4321 et seq.), FLPMA (Title 43, USC, section 1701 et seq.), the Archaeological Resources Protection Act (16 USC Section 470aa), CEQA, Public Resource Codes 5097.97 and 5097.98 (b) and (e), and the California Health and Safety Code (section 7050.5) identify the regulatory responsibilities concerning historical and cultural resources. These include the need to produce an inventory of resources that may be affected by the project, to evaluate these resources for eligibility, and to consider impacts that projects may have on eligible resources. In assessing significance under the NHPA, resources are evaluated for eligibility to the National Register of Historic Places (NRHP). Under CEQA, a similar assessment is made for eligibility to the California Register of Historical Resources (CRHR). The Archaeological Resources Protection Act (ARPA) also protects sites through penalties for noncompliance with its provisions and provides for authorizing archaeological investigations on Federal lands. In addition, under the Imperial County General Plan, goals and objectives have been established to preserve and maintain cultural and historic resources through the use of the environmental impact report process (Table 3.10-1).

**Table 3.10-1
Cultural Resources Law, Ordinance, Regulations, and Standards**

Applicable Law	Description
Federal	
National Historic Preservation Act (NHPA) of 1966, as amended 16 USC 470 (f)	Section 106 of the Act requires Federal agencies to address impacts of a proposed action to cultural resources and historic properties and give the Advisory Council on Historic Preservation an opportunity to comment
36 CFR Part 800 (as amended August 5, 2004)	Implementing regulations for Section 106 of the NHPA
National Environmental Policy Act (NEPA) Title 42 USE, section 4321 et seq.	Requires that Federal agencies consider potential environmental impacts of projects and consider appropriate mitigation measures.
Federal Land Policy and Management Act (FLPMA) Title 43, USC, section 1701 et seq.	Requires that the Secretary of the Interior manage public lands in such a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric water resource, and archaeological values (Section 1701 [a][8]). And that the Secretary, with respects to public lands, shall promulgate rules and regulations to carry out the purpose of this Act and other laws applicable to public lands (Section 1740).
Guidelines for Historic Preservation Projects; Federal Register 44739-44738, 190 (September 30, 1983)	A set of Standards and Guidelines set forth by the Secretary of the Interior for archaeological and historical preservation. This is used by Federal agencies as the standard for appropriate methods and techniques for preservation of historic and archaeological resources. The California Office of Historic Preservation references these as guidance for identifying qualified personnel and mitigation of potential impacts for resources located on public lands.
Executive Order 11593 May 13, 1971 (36 Federal Register 8921)	Mandates the protection and enhancement of cultural environment through the establishment of the California Office of Historic Preservation and developing criteria for assessing cultural resource values.
American Indian Religious Freedom Act (AIRFA) Title 42, USC, section 1996	Act protects Native American religious practices, heritage sites, and traditional land uses.
Native American Graves Protection and Repatriation Act (NAGPRA) (1990) Title 25, USC, section 3001 et seq.	Act establishes an ownership hierarchy that allows for the review and excavation of human remains, with the stipulation that human remains along with associated cultural items be returned to established ownership. Provides definition of cultural items, sacred objects, and objects of cultural patrimony, creating inventories and the return of specified cultural items as well as set penalties.
U.S. Department of the Interior, Bureau of Land Management (BLM), the California Desert Conservation Area (CDCA) Plan – 1980 as amended	The plan encourages continued efforts through the use of existing data to broaden the archaeological and historic knowledge of the CDCA and to identify the full spectrum of cultural resources within the CDCA and to preserve and protect these resources. Ensures that full consideration is given to cultural resources during the planning and management decision process and that BLM-authorized action will avoid inadvertent impacts to these resources. Ensure that data recovery efforts are conducted where adverse impacts cannot be avoided to significant resources.

Applicable Law	Description
State	
California Environmental Quality Act (CEQA), Sections 1000 et seq.	Requires that state and local agencies identify impacts of proposed discretionary activities or projects and determine if impact will be significant. Requires that alternatives are identified and that mitigation measures will reduce or eliminate impacts to the environment, including historic and archaeological resources.
AB 4239m 1976	Establishes the Native American Heritage Commission (NAHC) as the primary agency responsible for identifying and cataloguing Native American cultural resources, and establish an inventory of Native American sacred sites on public lands. Authorized to act in order to protect and prevent damage to cultural resources and to ensure Native Americans access to sacred sites.
Public Resources Code (PRC) 5097.97	States that no public agency or private party using, occupying or operating on public lands under a public license, permit, grant, lease or contract made on or after July 1, 1977, shall not interfere with the free expression or exercise of Native American religion as provide by the U.S. Constitution and the California Constitution. No public agency or private party cause severe or irreparable damage to Native American sanctified cemetery, place of worship, religious site, ceremonial site, or sacred shrine that is located on public lands, with the exception of a clear and convincing showing that the public interest and necessity so require.
Public Resources Code (PRC) 5097.98 (b) and (e)	States that a landowner on whose property Native American remains have been found will limit further development activity in the vicinity of the remains until the landowner confers with the NAHC's identified Most Likely Descendant (MLD) to consider treatment options. If no MLD is identified or if treatment options cannot be agreed upon by all parties, the landowner is required to reinter the remains on the property in a location that will not be subject to further disturbance.
California Health and Safety Code, Section 7050.5	States that to disturb or remove human remains found outside a cemetery is a misdemeanor. Also states that a landowner or project owner halt construction if human remains are discovered and to contact the county coroner.
Local	
Imperial County General Plan, Land Use Element 2008, Protection of Environmental Resources, Goal 9, Objective 9.1	Goal – To identify and preserve significant natural, cultural and community character resources as well as air and water quality. Objective – To preserve as open space lands containing watersheds, aquifer recharge areas, floodplains, important natural resources, sensitive vegetation, wildlife habitats, historic and prehistoric sites, or lands which are subject o seismic hazards and establish compatible minimum lot sizes.
Imperial County General Plan, Conservation and Open Space Element, Goals and Objective, Preservation of Cultural Resources	Goal – That important prehistoric and historic resources shall be preserved to advance scientific knowledge and maintain traditional historic elements of the Imperial Valley landscape. Objective – To protect and preserve site of archaeological, ecological, historical, and scientific value and/or cultural significance.

Applicable Law	Description
Imperial County General Plan, Conservation and Open Space Element, Implementation Programs and Policies, Cultural Resource Conservation	The County will use the Environmental Impact Report process to conserve cultural resources, stressing public awareness of cultural heritage. All information and artifactual resources recovered during the process will be stored in an appropriate institution and made available for public exhibit and scientific review. The use of open space easement for conservation of high value cultural resources will be encouraged. The Plan states that the County will coordinate with Federal, state, and local agencies to provide an adequate "Sensitivity Map for Cultural Resources" to identify cultural resource locations for use during development review. Newly discovered cultural resources shall be added. The County shall discourage vandalism of cultural resources or excavation by persons other than qualified archaeologist and shall study the feasibility of implanting and enacting polices and ordinances for the protection of cultural resources such as can be found in the California Penal Code, Title 14, Point1, Section 622-1/2.

3.10.2 Affected Environment

Information contained in this section is summarized from the *Cultural Resources Investigations Class III Report for the IID Dixieland 230-kV Transmission Line and Substation Expansion Project, Imperial County, California*, prepared by AECOM (October 2010).

Methodology

A records search for the Proposed Action, all alternatives, with a one-mile buffer was conducted by AECOM on July 30, 2009, at the South Coastal Information Center (SCIC), located at San Diego State University. The archival search consisted of an archaeological and historical records and literature review. The data reviewed included historic maps, the California Inventory of Historic Places, and NRHP information for the project area. This research provided a background on the types of sites that would be expected in the region. The research was also used to determine whether previous surveys had been conducted in the area and what resources had been previously recorded within the project limits.

Previous Investigations

The records and literature searches results indicated that 22 previous investigations had been conducted within a one-mile radius of the Proposed Action and all alternatives, as well as all project laydown areas, access routes, the Dixieland Substation, the Imperial Substation, and the proposed Liebert Substation (Table 3.10-2). Of these, six are located within the project area (Bull 1980; BLM 2001; Cultural Resources Systems 1982; Quillen 1982; Schaefer 1981;

Townsend 1984). These consist of Class II and Class III archaeological survey investigations and a cultural resources management plan. The search indicated that approximately 20 percent of the proposed project area had been previously surveyed and the majority of the studies were conducted more than 10 years ago.

**Table 3.10-2
Previous Investigations within a One-Mile Radius of Proposed Project**

Author	Title	Date	NADB Document Number
n.a.	Section 106 Consultation Request for American Tower Corporation Cell Site CA7-New Site #58, Seeley Imperial County, California 92273 APN 051-020-26.	2000	1100916
Berryman	Cultural Resource Treatment Plan in Support of the Construction of Two 230-kV Transmission Lines from the Imperial Substation to the International Border with Mexico.	2001	1101072; 1101073
Bull	A Cultural Resource Survey of the Proposed Imperial Valley Substation.	1980	1100213
Bureau of Land Management	Hunter's Alien Waters.	2001	1100853
Cultural Systems Research, Inc.	Archaeological Field Investigation of Cultural Resources Associated with the Proposed Imperial Valley Substation (7A) Access Road.	1982	1100262
Davis et al.	Class II Cultural Resource Inventory of the East Mesa and West Mesa Regions Imperial Valley, California. Volume I.	1980	1100207
de Barros	Cultural Resources Survey and Assessment of a Cellular Phone Tower Emplacement Along Old U.S. Highway 80 Near Dixieland Imperial County, California.	2000	1100820
Environmental Biologist, Inc.	Review of Alamosa PCS Site #82502-020 County of Imperial, California.	2000	1100757
Green and Davis	Cultural Resources Law Enforcement: An Emerging Science.	1980	1100232
Pignoli et al.	Cultural Resource Study of the Mount Signal and Dixie Ranch Imperial County Prison Alternatives Imperial County, California.	1990	1101057
Quillen	Cultural Resource Inventory of Gold Fields Mining Corporation's Indian Rose Mining Project, Imperial County, California.	1982	1100284
Robinson	Phase I Archaeological Survey of the Proposed Imperial Site, New Mental Health Treatment Facility Project.	2000	1101071
Schaefer	Phase II Archaeological Survey of the La Rosita 230 kV Interconnection Project.	1981	1100251
Schaefer	Camps and Quarries after the Lake: A Survey of 547 Acres Below the Relic Lake Cahuilla Shoreline in the Vicinity of Interstate 8 and Dunaway Road.	1982	1100330
Shackley	Volume I. Phase III Archaeological Survey of the Mountain Springs (Jade) to Sand Hills Portion of the APS/SDG&E Interconnection Project 500 kV Transmission Line.	1982	1100277
Townsend	Southwest Powerlink Cultural Resources Management Plan. Volume II.	1984	1100311
U.S. Department of Energy	Environmental Assessment for Presidential Permit Applications for Baja California Power, Inc. and Sempra Energy Resources.	2001	1100906

Author	Title	Date	NADB Document Number
U.S. Department of Energy	Draft Environmental Impact Statement for the Imperial–Mexicali 230 kV Transmission Lines.	2004	1100960
U.S. Department of Energy	Volume I and II. Final Environmental Impact Statement for the Imperial–Mexicali 230 kV Transmission Lines.	2004	1100972
von Werlhof and von Werlhof	Archaeological Examination of IID Proposed Gas Turbine Site near Brawley.	1977	1100114
Walker et al.	Cultural Resource Study of a Proposed Electric Transmission Line from Jade to the Sand Hills, Imperial County, California.	1981	1100233
WESTEC Services, Inc.	West Mesa Cultural Resource Survey and Site Evaluation Imperial Valley, California.	1984	1100325

Additionally, an updated records search was conducted in July of 2011 for an expanded area of up to five miles north and south of the proposed project area and up to 2.5 miles east and west, indicating that a number of major investigations have been recently completed or are ongoing within the vicinity of the Proposed Action, subsequent to the initiation of the original records search (Table 3.10-3).

**Table 3.10-3
Additional Previous Investigations**

Author	Title	Date	NADB Document Number
Ahmet et al.	Cultural Resources Investigations for Placer City and Superstition Mountain Open Areas Race Routes, Imperial County, California	2007	1101245
Farmer et al.	Class III Cultural resources technical Report for the Imperial Valley Solar project, Imperial County, California	2010	-
McKenna	A Phase I Cultural Resources Investigation of the Proposed USG Pipeline Alignment, Approximately Five Linear Miles Near Plaster City, Imperial County, California	2007	1101092
Noah and Gallegos	Final Class III Archaeological Inventory for the SDG&E Sunrise Powerlink Project, San Diego and Imperial Counties, California	2008	1101350
Pigniolo and Kwiatkowski	Cultural Resources Survey of the All American Canal 105 Race Course West Mesa, Imperial County, California	2007	1101200
Pigniolo et al.	Cultural Resource Survey for a Portion of the Centinela Solar Energy LLC Project Area Imperial County, California	2011	1101442
Recon	Cultural Resources Survey for the Imperial Valley West Solar Project	2010	-
SWCA	Final Cultural Resources Survey for Alternatives for the Sunrise Powerlink Project in Imperial, Orange, Riverside and San Diego Counties, California	2008	1101330
Tuma et al.	Cultural Resources Survey for the Brag Shooflies Project, Imperial County, California	2008	1101351
Zepeda-Kerman	Class III Cultural Resources Survey for the Imperial Energy Center South Project, Imperial County, California	2011	1101433

Generally these studies identified a range of both prehistoric and historic period resources, with prehistoric sites typically being more numerous. Prehistoric site types mostly include lithic and/or ceramic scatters and temporary camps. Historic period sites are frequently, historic debris scatters, and linear resources, such as canals, roads, and railroads.

Previously Identified Cultural Resources

The records and literature searches results indicated that 220 cultural resources (128 sites and 92 isolated finds) have been previously recorded within a one-mile radius of the project area (Table 3.10-4). The sites include temporary camps, ceramic scatters, lithic scatters, lithic and ceramic scatters, trail segments with and without associated artifacts, a trail marker, cairns, habitations sites, flaking stations, lithic quarries, pot drops, historic wagon roads, ruins of the historic 1909 Dixieland schoolhouse, the recently-demolished historic 1916 Dixieland Cafe and Grocery, historic railroads, a segment of U.S. Highway 80, the Westside Main Canal, and the Fox Glove Canal. Twelve of these have been combined to form one large prehistoric habitation site, CA-IMP-1100. Additionally, two site forms are missing and two of the sites have been mismapped on the quadrangle maps located at the SCIC, and are located outside the project area.

**Table 3.10-4
Previously Recorded Cultural Resources within a One-mile Radius of the Proposed Project**

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Description	Date Recorded/ Updated	Within the APE	Within a One-Mile Radius of the Project Area
000382	382	Temporary camp	1976	--	X
000383	383	Temporary camp	1976	--	X
000721	721	Ceramic scatter	1976	--	X
000722	722	Lithic and ceramic scatter	1976	--	X
000723	723	Lithic scatter	1976	--	X
000724	724	Isolate – chopper	1976	--	X
000743	743	Trail segment; ceramic scatter	1976	--	X
000744	744	Trail marker	1976	--	X
000745	745	Trail segment; ceramic scatter	1976	--	X
000746	746	Ceramic scatter	1976	--	X
000747	747	Isolate – scraper	1976	--	X
000748	748	Cairn	1976	--	X
000751	750	Ceramic scatter; scraper	1976	--	X
000753	753	Trail segment; ceramic and quartz scatter	1976	--	X
000754	754	Ceramic scatter	1976	--	X
000755	755	Temporary camp	1976	--	X
000756	756	Ceramic scatter	1976	--	X
000929	929	Lithic and ceramic scatter	1976	-	X

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Description	Date Recorded/ Updated	Within the APE	Within a One-Mile Radius of the Project Area
000930	930	Lithic scatter	1976	--	X
000931	931	Isolate – chopper	1976	--	X
000958	958	Habitation site	1976; 2003	--	X
001004	1004	Temporary camp	1977	X	--
001005	1005	Temporary camp	1977	X	--
001034	1034	Cairn	1976	--	X
001035	1035	Cairn	1976	--	X
001036	1036	Cairn	1976	--	X
001042	1042	Temporary camp; cairn	1976	--	X
001110	1110	Habitation site (sites 1123, 1124, 1125, 1126, 1398, 3940, 3941, 3942, 3943, 3944, and 3945 have been subsumed under site 1110)	1976;1971; 1979; 1981	--	X
001122	1122	See CA-IMP-383	--	--	X
001123	1123	See CA-IMP-1110	--	--	X
001124	1124	See CA-IMP-1110	--	--	X
001125	1125	See CA-IMP-1110	--	--	X
001126	1126	See CA-IMP-1110	--	--	X
001127	1127	Temporary camp	1976;1981; 1983	--	X
001129	1129	Temporary camp	1976	--	X
001137	1137	Temporary camp	1976	--	X
001398	1398	See CA-IMP-1110	--	--	X
001399	1399	Isolate – ceramic sherd	1976	--	X
001401	1401	Isolate – ceramic sherd and scraper	1976	--	X
001402	1402	Isolate – two ceramic sherds	1976	--	X
001403	1403	Isolate – two ceramic sherds	1976	--	X
001404	1404	Ceramic scatter	1976	--	X
001405	1405	Isolate – mano	1976	--	X
001406	1406	Temporary camp	1976	--	X
001407	1407	Isolate – ceramic sherd	1976	--	X
001408	1408	Lithic and ceramic scatter	1976; 1979	--	X
001413	1413	Lithic scatter	1976;1979; 2008	--	X
002481	2481	Isolate – metate fragment	1978	--	X
003176	3176	Temporary camp	1979	X	--
003191	3191-H	Historic 1909 Dixieland Schoolhouse	1977	--	X
003192	3192-H	Historic 1916 Dixieland Café and Grocery	1977	--	X
003399	3399-H	Historic wagon road segment	1856	--	X
003400	3400-H	Historic wagon road segment	1856; 1978	--	X
003401	3401-H	Historic wagon road segment	1856; 1978	--	X
003402	3402-H	Historic wagon road segment	1856; 1978	--	X
003772	3772	Lithic scatter	1979	--	X
003776	3776	Isolate – scraper	1979	--	X
003778	3778	Isolate – chopper	1979	--	X
003779	3779	Lithic scatter	1979	--	X

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Description	Date Recorded/ Updated	Within the APE	Within a One-Mile Radius of the Project Area
003780	3780	Isolate – scraper	1979	--	X
003781	3781	Isolate – projectile point	1979	--	X
003782	3782	Trail segment; ceramic scatter	1979	--	X
003783	3783	Isolate – two ceramic sherds	1979	--	X
003787	3787	Isolate – chopper	1979	--	X
003788	3788	Lithic scatter	1979	--	X
003789	3789	Lithic scatter	1979	--	X
003790	3790	Lithic scatter	1979	--	X
003791	3791	Lithic and ceramic scatter	1979	--	X
003792	3792	Isolate – flake	1979	--	X
003940	3940	See CA-IMP-1110	--	--	X
003941	3941	See CA-IMP-1110	--	--	X
003942	3942	See CA-IMP-1110	--	--	X
003943	3943	See CA-IMP-1110	--	--	X
003944	3944	See CA-IMP-1110	--	--	X
003945	3945	See CA-IMP-1110	--	--	X
004244	4244	Lithic scatter	1980; 1983	--	X
004245	4245	Historic debris scatter	1980	--	X
004246	4246	Isolate – flake and ceramic sherd	1980	--	X
004247	4247	Lithic scatter	1980	--	X
004248	4248	Lithic and ceramic scatter	1980	--	X
004249	4249	Isolate – core	1980	--	X
004345	4345	Isolate – ceramic sherd	1980	--	X
004346	4346	Temporary camp	1980	--	X
004348	4348	Habitation site	1980;1981; 1999; n.d.	--	X
004349	4349	Temporary camp	1980; 1981	--	X
004350	4350	Lithic, groundstone and ceramic scatter	1980; 1981	--	X
004351	4351	Lithic and ceramic scatter	1980; 1981	--	X
004352	4352	Temporary camp	1980	--	X
004353	4353	Isolate – flake and ceramic sherd	1980; 1981	--	X
004345	4354	Lithic scatter	1980; 1981	--	X
004355	4355	Isolate – two flakes	1980; 1981	--	X
004356	4356	Isolate – two ceramic sherds	1980	--	X
004472	4472	Isolate – ceramic sherd	1981	--	X
004473	4473	Isolate – ceramic sherd	1981	--	X
004474	4474	Isolate – two cores	1981	--	X
004503	4503	Historic debris scatter	1981	--	X
004504	4504	Isolate – two ceramic sherds	1981	--	X
004510	4510	Isolate – three flakes	1981	--	X
004511	4511	Isolate – flake	1981	--	X
004512	4512	Isolate – flake	1981	--	X
004513	4513	Isolate – three ceramic sherds	1981	--	X
004515	4515	Lithic and ceramic scatter	1981	--	X
004516	4516	Isolate – flake	1981	--	X

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Description	Date Recorded/ Updated	Within the APE	Within a One-Mile Radius of the Project Area
004517	4517	Isolate – flake	1981	--	X
004534	4534	Isolate – ceramic sherd	1981	--	X
004537	4537	Isolate – debitage	1981	--	X
004538	4538	Isolate – ceramic sherd	1981	--	X
004539	4539	Isolate – core	1981	--	X
004540	4540	Temporary camp	1981	X	--
004574	4574	Lithic scatter	1981	--	X
004578	4578	Flaking station	1981	--	X
004667	4667	Pot drop	1981	--	X
004668	4668	Temporary camp	1981	--	X
004670	4670	Isolate – flake	1981	--	X
004671	4671	Isolate – flake	1981	--	X
004673	4673	Isolate – flake	1981	--	X
004674	4674	Isolate – scraper and pestle	1981	--	X
005042	5042	Temporary camp	1983	--	X
005043	5043	Lithic and ceramic scatter	1983	--	X
005052	5052	Flaking station	1983	--	X
005053	5053	Ceramic scatter	1983	--	X
005197	5197	Temporary camp	1984	--	X
005198	5198	Lithic quarry	1984	--	X
005199	5199	Flaking station	1984	--	X
005200	5200	Flaking station	1984	--	X
005201	5201	Lithic scatter; pumice cache	1984	--	X
005202	5202	Temporary camp	1984	--	X
005203	5203	Lithic and ceramic scatter	1984	--	X
005204	5204	Temporary camp	1984	--	X
005298	5298	Isolate – mano	1982	--	X
005585	5585	Isolate – flake	1983	--	X
005586	5586	Isolate – flake	1983	--	X
005587	5587	Isolate – flake	1983	--	X
005588	5588	Isolate – flake	1983	--	X
005589	5589	Site form missing	--	--	X
005631	5631	Ceramic scatter	1983	--	X
005632	5632	Isolate – ceramic sherd	1983	--	X
005633	5633	Isolate – metate	1983	--	X
005648	5648	Lithic scatter	1984	--	X
005705	5705	Lithic scatter	1984	--	X
005709	5709	Isolate – ceramic sherd	1984	--	X
005710	5710	Isolate – ceramic sherd	1984	--	X
005711	5711	Isolate – flake	1984	--	X
005712	5712	Isolate – flake	1984	--	X
005713	5713	Isolate – ceramic sherd	1984	--	X
005714	5714	Isolate – flake	1984	--	X
005715	5715	Ceramic scatter	1984	--	X
005716	5716	Isolate – ceramic sherd	1984	--	X
005911	5911	Trail segment	1988	--	X

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Description	Date Recorded/ Updated	Within the APE	Within a One-Mile Radius of the Project Area
005912	5912	See CA-IMP-5911	--	--	X
006390	6390	Isolate – metate fragment	1989	--	X
006391	6391	Isolate – tool	1989	--	X
006392	6392	Isolate – mano fragment	1989	--	X
006393	6393	Isolate – hammerstone	1989	--	X
006394	6394	Isolate – core	1989	--	X
006398	6398	Isolate – metate	1989	--	X
006680	6680	Isolate – scraper	1983	--	X
006681	6681	Isolate – flake	1983	--	X
006802	6802	Site mismapped	--	--	--
006803	7804	Lithic and ceramic scatter	2000	--	X
006884	6884	Site mismapped	--	--	--
008323	7816H	Historic railroad stop; historic debris scatter	1999; 2007	--	X
008334	7834	Westside Main Canal segment	1999	X	--
008418	7886	U.S. Highway 80	2001;2007;2009; 2011	X	--
009121	8739	Lithic and ceramic scatter	2006; 2008	--	X
009122	--	Isolate – flake and core	2006	--	X
009123	--	Isolate – flake	2006	--	X
009124	--	Isolate – core	2006	--	X
009125	--	Isolate – flake	2006	--	X
009126	--	Isolate – two ceramic sherds	2006	--	X
009127	--	Isolate – two flakes	2006	--	X
009128	--	Isolate – core and metate fragment	2006	--	X
009142	--	Isolate – flake	2006	--	X
009143	--	Isolate – mano and flake	2006	--	X
009144	--	Isolate – flake	2006	--	X
009302	8489	San Diego & Arizona Eastern Railroad	2007	X	--
009532	--	Isolate – flake	2007	--	X
009539	--	Isolate – two flakes	2007	X	--
009540	--	Isolate – flake	2007	X	--
009541	--	Isolate – flake	2007	X	--
009542	--	Isolate – flake	2007	X	--
009543	--	Isolate – flake	2007	X	--
009545	8618	Lithic scatter	2006	--	X
009549	--	Isolate – core	2006	--	X
009550	--	Isolate – two cores	2006	--	X
009587	8652	Lithic, ceramic, and groundstone scatter	2006	--	X
009588	8653	Ceramic scatter	2007	--	X
009589	--	Isolate – two ceramic sherds	2007	--	X
009590	8654	Lithic and ceramic scatter	2006	--	X
009591	8655	Lithic scatter	2006	--	X
009592	8656	Lithic scatter	2006; 2007	--	X

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Description	Date Recorded/ Updated	Within the APE	Within a One-Mile Radius of the Project Area
009593	8657	Lithic and ceramic scatter	2007	X	--
009594	8658	Temporary camp	2007	X	--
009620	8665	Lithic and ceramic scatter	2006	--	X
009621	--	Isolate – flake	2007	--	X
009622	8666	Lithic and ceramic scatter	2006; 2007	--	X
009623	8667	Lithic scatter	2006	--	X
009625	8669	Lithic and ceramic scatter	2006; 2007	--	X
009653	8696	Ceramic scatter	2006	--	X
009654	8697	Temporary camp	2006	--	X
009655	8698	Lithic and ceramic scatter	2006	--	X
009709	--	Isolate – flake	2007	--	X
009710	8720	Lithic scatter	2007	--	X
009755	8745	Lithic scatter	2007	--	X
009786	8762H	Historic debris scatter	2007	--	X
009790	8766	Temporary camp	2006	--	X
009791	8767	Lithic scatter	2006	--	X
009794	8769	Lithic scatter	2006	--	X
009841	--	Isolate – flake and mano	2006	--	X
009842	--	Isolate – core	2006	--	X
009843	--	Isolate – flake	2007	--	X
009855	--	Isolate – hammerstone	2007	--	X
009858	--	Isolate – core and mano	2007	--	X
009856	--	Site form missing	--	--	X
009859	--	Isolate – flake and ceramic sherd	2007	--	X
009860	8807	Lithic scatter	2007	--	X
009880	8821	Fox Glove Canal	2007	--	X
009889	--	Isolate – two flakes	2007	--	X
009890	--	Isolate – flake	2007	--	X
009919	8845	Lithic scatter	2007	--	X

Of the previously recorded sites, nine were reported within the project area. These consist of five temporary camps (CA-IMP-1004, -1005, -3176, -4540, and -8658), a lithic and ceramic scatter (CA-IMP-8657), a segment of the Westside Main Canal (CA-IMP-7834), a segment of U.S. Highway 80 (CA-IMP-7886), and two segments of the San Diego & Arizona Eastern Railroad (CA-IMP-8489). These resources as well as sites CA-IMP-3176, -4540, -8657 and -8658 do not appear to have previous evaluation recommendations.

Native American Contact Program

The California Native American Heritage Commission (NAHC) was contacted in September of 2009 to identify possible sacred lands within a one-mile radius of the Proposed Action. A search

of the NAHC files indicated that there are sensitive Native American cultural resources within 0.5 mile of the Proposed Action, located in the Plaster City and Mount Signal quadrangles. Additionally, NAHC provided a list of Native American contacts that might have an interest or concern regarding the proposed project, all of whom were notified by AECOM via letter regarding the project. Their concerns and/or knowledge of resources in the area were solicited to aid in the current survey effort.

Government to Government consultation with Tribes is the responsibility of the BLM El Centro Field Office. The BLM has notified 15 Indian Tribes about the project and has invited them into consultation. Specifically, the BLM has requested their assistance in identifying any issues or concerns they may have about the project, including identifying sacred sites and places of traditional religious and cultural significance which might be affected by the proposed project or its alternatives. Government to Government consultation is ongoing.

Archaeological Field Survey

A BLM Class III archaeological inventory was conducted for the Proposed Action, the Route Alternative 1, the Route Alternative 2, and the proposed Liebert Substation including both private and public lands (Bowden-Renna 2010). A separate technical report was prepared documenting the results of this survey (Bowden-Renna 2010). A Fieldwork Authorization was obtained from BLM under permit Cultural Use Permit CA-09-31 prior to conducting survey on BLM lands. The total surveyed area for the project was 332 acres, of which 208 acres are on federal lands administered by the BLM El Centro Field Office. The remainder is located on private lands. The Area of Potential Effects (APE) consisted of a 140-foot wide APE and a length of 7.34 miles for the Proposed Action, 7.43 miles for Route Alternative 1, and 7.18 miles for Route Alternative 2. All three alignments cross the proposed Liebert substation footprint, which consists of an 800 ft by 800 ft area. The APE for all project components was surveyed at an interval between 12 to 15 m. All proposed work space and proposed access will be within the proposed APE. Additional Class III archaeological inventory (Bowden-Renna 2011) was conducted for two proposed layout areas consisting of 140 ft by 200 ft the proposed expansion of the Dixieland Substation, redesign of pole turn area near the mid-point for the Proposed Action consisting of 695 ft long and 95 ft a the widest, additional workspace identified north of the proposed Liebert Substation consisting of 1,878 ft long by 140 ft wide. Two access roads to access the proposed action are located outside of the Proposed Action and are both located on existing dirt roads that will not require improvements. The northern ingress/egress route is south of the Dunaway exit off of I-8 and parallels the interstate along the south and into fallow agricultural fields. The southern ingress/egress route follows the southern edge of fallow

agricultural fields, west of Westside Main Canal, and south of I-8, and accesses the mid-point of the proposed action. All project components were surveyed at intervals of between 10 and 12 meters (m). The total surveyed area for these additional areas is 9.09 acres, of which 3.76 acres are on federal lands administered by the BLM El Centro Field Office. The remainder is located on private land. Newly recorded sites and site updates of previously recorded sites were prepared on appropriate Department of Parks and Recreation (DPR) forms during survey efforts.

Built Environment Survey

A built environment survey was conducted for the Proposed Action, Route Alternative 1, Route Alternative 2, the proposed Liebert Substation, and all identified layout areas and access routes (Meiser, in progress). A Fieldwork Authorization was obtained from BLM under permit Cultural Use Permit CA-09-31 prior to conducting survey on BLM lands. The APE for the built environment encompassed 7.34 miles for the Proposed Action, 7.43 miles for Route Alternative 1, and 7.18 miles for Route Alternative 2, and a 0.5-mile buffer around these areas. Previously recorded resources were identified and newly identified resources were recorded on appropriate DPR forms and documented in a separate technical report.

The Westside Main Canal and the San Diego & Arizona Eastern Railroad (Wesson et al. 2007) were previously recommended eligible for listing on the NRHP. However, the segment of the Westside Main Canal within the Proposed Action was recommended not eligible (Hupp 1999). The segment of the San Diego & Arizona Eastern Railroad within the Proposed Action has not been previously recorded. The segment of U.S. Highway 80 was previously recorded first in 2001 (ASM Associates, Inc. 2001), and was assigned a status code that indicates it was recommended eligible for the NRHP.

CEQA SIGNIFICANCE CRITERIA

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

- CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

CR2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.

CR3 Disturb any human remains, including those interred outside of formal cemeteries.

NEPA Indicators

This MND/EA analyzes both construction and operations impacts to cultural resources associated with the Proposed Action and all alternatives and associated workspace areas, laydown areas, and access routes. Effects for the proposed action and all alternatives are discussed below.

Existing Conditions

Cultural Resources Survey Results

Previously Recorded Cultural Resources

Of the previously recorded sites, nine were reported within the project area, along with five isolated finds (Table 3.10-5). The sites consist of five temporary camps (CA-IMP-1004, -1005, -3176, -4540, and -8658), a lithic and ceramic scatter (CA-IMP-8657), a segment of the Westside Main Canal (CA-IMP-7834), a segment of U.S. Highway 80 (CA-IMP-7886), and two segments of the San Diego & Arizona Eastern Railroad (CA-IMP-8489). Of the previously recorded resources, five were found during the survey; these are two temporary camps (CA-IMP-3176 and -8658), a lithic and ceramic scatter (CA-IMP-8657), the Westside Main Canal (CA-IMP-7834), and the San Diego & Arizona Eastern Railroad (CA-IMP-8489). Two of these sites are located on land administered by BLM.

**Table 3.10-5
Previously Recorded Sites**

Primary Number (P-13-)	Trinomials (CA-IMP-)	Description	CRHR/ NRHP Eligibility Status*	Proposed Action	Route Alternative 1	Route Alternative 2	Site Relocated
001004	1004	Temporary camp	Unknown	X	-	-	No
001005	1005	Temporary camp	Unknown	X	-	-	No
003176	3176	Temporary camp	Unknown	-	-	X	Yes; outside survey area
004540	4540	Temporary camp	Unknown	-	X	-	No
008334	7834	Westside Main Canal segment	Previously recommended eligible; segment within Alternative 2 previously recommended not eligible	-	-	X	Yes
008418	7886	U.S. Highway 80	Previously recommended eligible; segment within Proposed Action not previously evaluated	X	X	X	No
009302	8489	San Diego & Arizona Eastern Railroad	Previously recommended eligible; segment within Proposed Action not previously recorded or evaluated	X	X	X	Yes
009539	-	Isolate – two flakes	Not eligible	-	-	X	No
009540	-	Isolate – flake	Not eligible	X	-	-	No
009541	-	Isolate – flake	Not eligible	-	X	-	No
009542	-	Isolate – flake	Not eligible	-	X	-	No
009543	-	Isolate – flake	Not eligible	-	X	-	No
009593	8657	Lithic and ceramic scatter	Unevaluated/potentially eligible	X	X	-	Yes
009594	8658	Temporary camp	Unevaluated/potentially eligible	X	X	X	Yes

*Pending agency concurrence

CA-IMP-1004 (Proposed Action, Northern Access Road)

This site was recorded by Jay von Werlhof (1977a) in 1977 as a small temporary camp consisting of a lithic scatter and a rock cairn. The site measures 10 m in diameter. This site was not relocated and appears to be outside of the APE for the proposed northern access road. The site is mapped on lands managed by BLM.

CA-IMP-1005 (Proposed Action, Northern Access Road)

This site was recorded by Jay von Werlhof (1977b) in 1977 as a small temporary camp consisting of a lithic and groundstone scatter measuring 3 m in diameter. This site was not relocated and appears to be outside of the area of potential effects (APE) for the proposed northern access road. The site is mapped on lands managed by BLM.

CA-IMP-3176 (Route Alternative 2)

Site CA-IMP-3176 was recorded by Sherilee von Werlhof in 1979 (von Werlhof 1979) as a small temporary camp consisting of lithics and ceramics in a 3 m diameter area. The site area was originally mapped adjacent to the additional workspace. Two black metavolcanic flakes were observed during the current effort. No ceramics were observed. Based on the current survey effort the site is located 86 m east of the workspace. The area has been disturbed by vehicle activity. The site is mapped on lands managed by BLM.

CA-IMP-4540 (Route Alternative 1)

Site CA-IMP-4540 was originally recorded by Jerry Schaefer in 1981 (Schaefer 1981b) as a temporary campsite consisting of a widely dispersed lithic scatter in an area of approximately 400 m by 100 m. Lithics included flakes, cores and hammerstones. Lithic material consisted of andesite. This site was not relocated during the current effort. The mapped location of this site shows the majority of the site is outside of the proposed APE. This site is mapped on lands managed by BLM.

CA-IMP-7834 (Route Alternative 2)

Site CA-IMP-7834 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal and was built about 1906 as a part of the IID canal system within Imperial Valley. The portion of the canal within the proposed APE is earthen lined and is still in use today. While the canal has been recommended eligible for the NRHP, the portion of the canal within the proposed APE was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under CEQA, the portion of the canal under I-8 is not a historic resource, and, therefore, is not eligible for the CRHR (Hupp 1999).

CA-IMP-7886 (Proposed Action, Route Alternative 1, and Route Alternative 2)

Site CA-IMP-7886 was previously recorded by ASM Affiliates, Inc. in 2001 as a 2.5-mile segment of 2,725-mile long U.S. Highway 80 that extends from San Diego, California to Savannah, Georgia. This segment of U.S. Highway 80 was first built in the 1930s, as part of a connection between Yuma and San Diego. This site does not appear to be evaluated for

eligibility to the NRHP, CRHR, or as a historical resource for purposes of CEQA. The segment located within the proposed APE does not appear to have been previously recorded. Recordation of the entire property was considered outside of the project scope; only the segment of the resource within the APE was revisited. U.S. Highway 80 is primarily a two-lane built-up asphalt highway in the APE, and does not appear to be a significant portion of the Highway 80 system due to its diminished integrity. This segment of Highway 80 is recommended not eligible for the NRHP or CRHR.

CA-IMP-8489 (Proposed Action, Route Alternative 1, and Route Alternative 2)

Site CA-IMP-8489 was recorded by Wesson and others in 2007 as two 300-foot segments of the San Diego & Arizona Eastern Railroad. The two segments recorded were recommended eligible for the NRHP and CRHR based on the railroad's role in the development of Imperial County and its integrity. The segment located within the proposed APE had not been previously recorded.

CA-IMP-8657(Proposed Action and Route Alternative 1)

Site CA-IMP-8657 was recorded by Doose and others in 2007 as a lithic and ceramic scatter. Lithics consisted of 16 pieces of debitage and one core. Material includes metavolcanic, volcanic, and quartzite. Ceramics consisted of 21 buff and brown ware body sherds. The site measures 89 m by 40 m. This site was found during the current survey effort. The site does not appear to have been previously evaluated for eligibility for the NRHP. This site is located on land administered by BLM.

CA-IMP-8658 (Proposed Action, Route Alternative 1, and Route Alternative 2)

Site CA-IMP-8658 was recorded by Doose and others in 2007 as a temporary camp consisting of lithics, tools, ceramics, groundstone, and a hearth feature. Lithics consisted of a battered stone, a core, two projectile points, and debitage. Lithic material included metavolcanic, obsidian, red jasper, and cryptocrystalline silicate (CCS). Groundstone included two mano fragments and one unidentified groundstone fragment. Material consisted of sandstone and granitic materials. Ceramics included 29 sherds. One hearth feature was described as several fire-affected rocks with associated ashy soil with flecks of charcoal. The site measures 270 m by 150 m. This site was found during the current survey effort. Site CA-IMP-8658 does not appear to have been previously evaluated for eligibility for the NRHP. This site is located on land administered by BLM.

Newly Identified Archaeological Resources

Forty-three newly identified archaeological resources were observed during the survey effort. Sixteen of these are prehistoric or historic archaeological sites; the remaining 27 resources are isolated finds (Table 3.10-6). Of these, 14 sites and 23 isolates are located on land managed by BLM. One isolate is actually within the site boundaries for CA-IMP-9593. The newly recorded resources are described below.

**Table 3.10-6
Newly Recorded Archaeological Resources**

Primary Number (P-13-)	Trinomials (CA-IMP-)	Description	CRHR/NRHP Eligibility Status*	Proposed Action	Route Alternative 1	Route Alternative 2
-	See CA-IMP-9593	Isolate – core	Not eligible	X	-	-
013099	-	Isolate – flake	Not eligible	-	X	-
013100	-	Isolate – flake	Not eligible	-	X	-
013101	-	Isolate - Chlorox jar	Not eligible	X	-	-
013102	-	Isolate - Tin can	Not eligible	X	-	-
013103	-	Isolate - Ceramic sherd	Not eligible	X	-	-
013104	-	Isolate - Tin can	Not eligible	-	X	-
013105	-	Isolate - Glass fragment	Not eligible	-	-	X
013106	-	Isolate – Flake	Not eligible	-	X	-
013107	-	Isolate – Two flakes	Not eligible	-	X	-
013108	-	Isolate - Flake	Not eligible	X	-	-
013109	-	Isolate – Flake	Not eligible	X	-	-
013110	-	Isolate – Two flakes	Not eligible	X	-	-
013111	-	Isolate - Two ceramic sherds	Not eligible	X	-	-
013112	-	Isolate - Flake	Not eligible	X	-	-
013113	-	Isolate – Tin can	Not eligible	X	-	-
013114	-	Isolate – Glass bottle	Not eligible	X	-	-
013115	-	Isolate – Glass bottle	Not eligible	X	-	-
013116	-	Isolate - Two flakes	Not eligible	-	-	X
013117	-	Isolate - Two flakes	Not eligible	-	-	X

Primary Number (P-13-)	Trinomials (CA-IMP-)	Description	CRHR/NRHP Eligibility Status*	Proposed Action	Route Alternative 1	Route Alternative 2
013118	-	Isolate - 1941 USGS survey marker	Not eligible	-	-	X
013119	-	Isolate - Flake	Not eligible	-	-	X
031120	-	Isolate - Two ceramic sherds	Not eligible	-	-	X
031121	-	Isolate - Flake	Not eligible	X	X	-
031122	-	Isolate - Flake	Not eligible	X	X	-
031123	-	Isolate - Ceramic sherd	Not eligible	X	X	-
031124	-	Isolate - Utilized flake	Not eligible	X	X	-
013125	11346	Secondary deposit (lithic scatter) and USGS marker	Not eligible	-	X	-
013126	11437	Historic period debris scatter	Unevaluated/Potentially eligible	X	X	X
013127	11438	Debitage and two cans	Not Eligible	X		
013128	11439	Historic period debris scatter	Unevaluated/Potentially eligible		X	
013129	11440	Lithic scatter	Unevaluated/Potentially eligible		X	X
013130	11441	Lithic ceramic, and historic debris scatter	Unevaluated/Potentially eligible	X		
013131	11442	Lithic scatter	Unevaluated/Potentially eligible	X		
013132	11443	Lithic and groundstone scatter	Unevaluated/Potentially eligible	X		
013133	11444	Lithic scatter	Unevaluated/Potentially eligible			X
013134	11445	Lithic scatter	Unevaluated/Potentially eligible			X
013135	11446	Lithic and groundstone scatter	Unevaluated/Potentially eligible		X	
013136	11447	Lithic and ceramic scatter	Unevaluated/Potentially eligible		X	
013137	11448	Lithic scatter	Unevaluated/Potentially eligible			X
013138	11449	Lithic scatter	Unevaluated/Potentially eligible			X
013139	11450	Lithic scatter	Unevaluated/Potentially eligible			X
013140	11451	Reservoir	Not eligible		X	

*Pending agency concurrence

CA-IMP-11436 [IID-S-001] (Route Alternative 1)

This site is a possible secondary deposit consisting of a lithic scatter. Lithics included obsidian, jasper, and petrified wood. A concentration of obsidian is located approximately 5 m northwest of the lithic scatter and it appears to have been recently flaked. A 1930s church key tin can was observed. A 1941 USGS Survey Marker was also noted on site. The site measures 10 m by 10 m and is located on private lands.

CA-IMP-11437 [IID-S-002H] (Proposed Action, Route Alternative 1, and Route Alternative 2)

This site consists of a historic trash scatter, possibly associated with the San Diego & Arizona Eastern Railroad (see site form for P-13-009302). The scatter consisted of tin cans, glass, bottle fragments, and milled wood, that range in date from the late 1880s to the mid-1930s. The scatter is located on the east side of railroad tracks and runs parallel with the tracks. The site measures approximately 343 ft by 50 ft (104 m by 15 m). This site is located on private lands.

CA-IMP-11438 [IID-S-004H] (Proposed Action)

This site consists of a very sparse multicomponent site with prehistoric and historic resources. Lithics consist of one piece of debitage. Lithic material is metavolcanic or possible obsidian; however, it is severely weathered. Historic period artifacts consist of two tin cans. The site measures 49 ft by 16 ft (15 by 5 m). This site is located on lands managed by BLM.

CA-IMP-11439 [IID-S-005H] (Route Alternative 1)

This site consists of a historic period trash scatter. Artifacts consisted of approximately 15 tin cans, 20 ceramic fragments, 20 glass shards, and one light bulb base. Ceramics included white ware and ironstone. Glass included clear, amber, cobalt, green, and milk glass. One whole glass jar was noted. Dates range from the late 1880s to the mid-1940s. The site measures 10 ft by 5 ft (3 m by 1.5 m). This site is located on lands managed by BLM.

CA-IMP-11440 [IID-S-006] (Route Alternative 1 and Route Alternative 2)

This site consists of a fairly sparse lithic scatter. The site contains at least six flakes, one hammerstone, and two cores. Lithic material included black metavolcanic and wonderstone. The site measures 45 m by 20 m. This site is located on lands managed by BLM.

CA-IMP-11441 [IID-S-007/H] (Proposed Action)

This is a multi-component site consisting of a prehistoric lithic and ceramic scatter and a historic trash scatter. Lithics consisted of five metavolcanic pieces of debitage. Ceramics consisted of eight buffware body sherds. Historic artifacts are located in three concentration areas. Concentration 1 consists of 31 tin cans, some of which are embedded. Concentration 2 includes

31 tin cans, 12 glass shards, and whole glass bottles. Concentration 3 consists of glass and bottle fragments, some embossed. Dates range from the 1910s to the mid-1940s. The site measures 42 m by 20 m. This site is located on lands managed by BLM.

CA-IMP-11442 [IID-S-008] (Proposed Action)

This site consists of a sparse lithic scatter. The site contains at least six pieces of debitage. Lithic material includes black and green metavolcanics. The site measures 15 m by 10 m. This site is located on lands managed by BLM.

CA-IMP-11443 [IID-S-009] (Proposed Action)

This site consists of a sparse lithic and groundstone scatter. Groundstone includes three sandstone metate fragments that re-fit. Lithics include five pieces of debitage, all made from metavolcanic material. The site measures 25 m by 15 m. This site is located on lands managed by BLM.

CA-IMP-11444 [IID-S-010] (Route Alternative 2)

This site consists of a very sparse lithic scatter. Lithics include four pieces of debitage. Lithic material consists of metavolcanic material. The site measures 28 m by 10 m. This site is located on lands managed by BLM.

CA-IMP-11445 [IID-S-011] (Route Alternative 2)

This site consists of a very sparse lithic scatter. The site contains one core and two pieces of debitage. Lithic material consists of metavolcanic material. The site measures 20 m by 10 m. This site is located on lands managed by BLM.

CA-IMP-11446 [IID-S-101] (Route Alternative 1)

This site consists of a very sparse lithic and groundstone scatter. Lithics include two highly patinated pieces of debitage. Lithic material consists of black metavolcanic material. One granitic metate fragment was also observed. The metate fragment was found upside down and is at least 75 percent complete. It appears slicked on the outer edges, around the basin. The site measures 8.5 m by 5 m. This site is located on lands managed by BLM.

CA-IMP-11447 [IID-S-102] (Route Alternative 1)

This site consists of a lithic and ceramic scatter. Lithics consist of approximately 40 pieces of debitage. Lithic materials primarily consist of grey and black metavolcanic with some CCS and wonderstone. One metavolcanic core was also observed. Ceramics consist of approximately 30 body sherds with at least two rim sherds observed. The ceramics include Colorado buffware

from at least two vessels. One concentration of lithics and ceramics in a 3- by 2-m area was noted. The site measures 20 m by 14 m. This site is located on lands managed by BLM.

CA-IMP-11448 [IID-S-106] (Route Alternative 2)

This site consists of a lithic scatter. Lithics consist of approximately 12 pieces of debitage and one core. Lithic material includes black and green metavolcanics. The site measures 20 m by 10 m. This site is located on lands managed by BLM.

CA-IMP-11449 [IID-S-107] (Route Alternative 2)

This site consists of a very sparse lithic scatter. Lithics consist of four pieces of debitage. Lithic materials include black and green metavolcanics. The site measures 15 m by 5 m. This site is located on lands managed by BLM.

CA-IMP-11450 [IID-S-108] (Route Alternative 2)

This site consists of a sparse lithic scatter. Lithics consist of six pieces of debitage. Lithic material includes green and black metavolcanics. The site measures 40 m by 5 m. This site is located on lands managed by BLM.

CA-IMP-11451 [IID-S-109H] (Route Alternative 1)

This site is a potentially historic reservoir. The reservoir is a dirt-lined rectangle, measuring 325 ft by 200 ft (100 m by 60 m). Several wooden piers are located within the reservoir, which ranges in date from the late 1950s to early 1970s. This site is located on lands managed by BLM.

Newly Identified Built Environment Resources

Ten newly identified built environment resources were observed during the survey effort (Table 3.10-7). Of these, all are located on private land. The newly recorded resources are described below.

**Table 3.10-7
Newly Recorded Built Environment Resources**

Temporary Resource Name	Description	Proposed Action	Route Alternative 1	Route Alternative 2	On BLM Lands	Eligible for NRHP/CRHR*
IID-TM-001	Exterior walls (moved)	X	X	X (buffer)	No	No
IID-TM-002	Residence	X	X	X (buffer)	No	No
IID-TM-003	Residence	X	X	X (buffer)	No	No

Temporary Resource Name	Description	Proposed Action	Route Alternative 1	Route Alternative 2	On BLM Lands	Eligible for NRHP/CRHR*
IID-TM-004	Restaurant	X	X	X (buffer)	No	No
IID-TM-005	Outbuilding and Water tower	X	X	X (buffer)	No	No
IID-TM-006	Residence	X	X	X (buffer)	No	No
IID-TM-007	Residence/Outbuilding	X (buffer)	-	-	No	No
IID-TM-008	Residence	X	X	X (buffer)	No	No
IID-TM-009	Farm	-	-	X (buffer)	No	No
IID-TM-010	Garage	X	X	X (buffer)	No	No

*pending agency determination

IID-TM-001 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is a Mission-style structure, dating approximately between 1890 and 1920. It does not appear to be in its original location, and was moved to its present location after 1979 (USGS Topographical Quadrangle Map Plaster City, 1979). Although it retains some architectural significance in its design, the building does not retain sufficient integrity to appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-002 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is a Ranch-style structure, with board and batten walls, aluminum windows, and modern features, built approximately in the 1950s to 1970s. It does not appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-003 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is a Ranch-style structure, with stucco walls, metal multi-pane windows, and modern features, built approximately in the 1960s to 1980s. It does not appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-004 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is a brick restaurant building, dating approximately between the 1920s and 1950s. Although associated with commerce along Highway 80 through the old town site of Dixieland, it does not appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-005 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource consists of two frame outbuildings that are associated with a former residential site, dating approximately between the 1920s and 1950s. The buildings, including a shed and a water tower, do not retain sufficient integrity to appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-006 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is a Ranch-style residential structure, dating approximately between 1957 and 1979. It does not appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-007 (Proposed Action)

This resource is a residential structure that was built before 1957, but is of undetermined age and unrecognizable architectural design. It does not retain sufficient integrity to convey any historical significance, nor to appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-008 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is a residential structure, dating approximately between 1957 and 1979. It is eclectic with several alterations and does not retain sufficient integrity to appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-009 (Route Alternative 2)

This resource is a residential structure, built between 1957 and 1976. It is associated with the general development of farming in the area during the mid-20th century. It does not appear eligible for the NRHP or CRHR. This resource is located on private land.

IID-TM-010 (Proposed Action/Route Alternative 1/Route Alternative 2)

This resource is garage, dating approximately between the 1920s and 1950s. It appears to have been associated with a now demolished residential structure. It does not appear eligible for the NRHP or CRHR. This resource is located on private land.

3.10.3 Environmental Effects for the Proposed Action

3.10.3.1 Direct and Indirect Effects

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.

Based on project design, all pole locations will be located outside of identified cultural resources and all access routes and work spaces will be designed to avoid identified cultural resource. Therefore, there would not be direct effects to cultural resources.

3.10.3.2 CEQA Significance Determination

CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Portions of CA-IMP-8489 (San Diego & Arizona Eastern Railroad) are located within the APE for the Proposed Action. Two segments were previously recorded and recommended eligible for the NRHP and CRHR based on the railroad’s role in the development of Imperial County and its integrity. The segment located within the Proposed Action has not been evaluated for the NRHP or the CRHR. Based on the project design CA-IMP-8489, the San Diego & Arizona Eastern Railroad, will be avoided. Based on project design, all poles will be constructed outside of and no closer than 50 ft from identified cultural resources. Access roads will be limited to new towers located to the north and south of CA-IMP-8489, but will not cross the railroad.

CR2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.

Seven archaeological sites are located within the area of direct impact for the Proposed Action. Two previously recorded sites (CA-IMP-8657 and -8658) consist of a prehistoric lithic and ceramic scatter and a temporary camp. The location of both sites within the APE was confirmed during the current survey effort. Neither site appears to have been previously evaluated for eligibility for the CRHR or for the NRHP. Five additional archaeological resources were identified during the current survey effort: CA-IMP-11427, -11438, -11441, -11442, and -11443. These consist of two multi-component sites, a historic trash scatter, a lithic scatter, and a lithic and groundstone scatter. Based on the project design, the Proposed Action will avoid all of

the known cultural resources. This will be accomplished for five of the sites by routing the access road around the sites and/or spanning them. However, in order to avoid CA-IMP-8657 and CA-IMP-8658 no new access roads will be constructed in the right-of-way between towers on either side of these sites. Access to towers in these areas will be provided by existing roads that do not cross the sites.

CR3 Disturb any human remains, including those interred outside of formal cemeteries

No human remains have been previously identified within the Proposed Action. No human remains were observed during the current survey effort. However, previously recorded sites and the newly recorded sites within the Proposed Action have not been evaluated for significance and buried deposits may be present. Therefore, the possibility of human remains in the area is present and would be a potentially significant impact if found.

3.10.4 Environmental Effects for Route Alternative 1

3.10.4.1 Direct and Indirect Effects

As described in Section 2.3, 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.

Based on project design, all pole locations will be located outside of identified cultural resources and all access routes and work spaces will be designed to avoid identified cultural resource. Therefore, there would not be direct effects to cultural resources.

3.10.4.2 CEQA Significance Determination

CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Portions of CA-IMP-8489 (San Diego & Arizona Eastern Railroad) are located within the APE for the Route Alternative 1. The two previously recorded segments were recommended eligible for the NRHP and CRHR based on the railroad's role in the development of Imperial County and its integrity. The segment located within the Route Alternative 1 has not been evaluated for the NRHP or CRHR. Based on project design, all poles will be constructed outside of and no closer than 50 ft from identified cultural resources. Access roads will be limited to new towers located to the north and south of CA-IMP-8489, but will not cross the railroad. .

CR2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.

Two previously recorded archaeological resources (CA-IMP-8657 and -8658) are located within the APE for Route Alternative 1. These consist of a temporary camps and a lithic scatter. Neither of the sites appears to have been previously evaluated for eligibility for the CRHR or for the NRHP. Six additional archaeological resources were identified during the current survey effort, CA-IMP-11436, -11439, -11400, -11446, -11447, and -11451. These consist of two lithic scatters, a lithic and groundstone scatter, a lithic and ceramic scatter, a historic period trash scatter, and a historic reservoir. The Route Alternative 1 will avoid all of the known cultural resources

CR3 Disturb any human remains, including those interred outside of formal cemeteries

No human remains have been previously identified within Route Alternative 1. No human remains were observed during the current survey effort. However, previously recorded sites and newly recorded sites within Route Alternative 1 have not been tested or evaluated for significance and buried deposits may be present. Therefore, the possibility of human remains in the area is present and would be a potentially significant impact if found.

3.10.5 Environmental Effects for Route Alternative 2

3.10.5.1 Direct and Indirect Effects

As described in Section 2.4, 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.

Based on project design, all pole locations will be located outside of identified cultural resources and all access routes and work spaces will be designed to avoid identified cultural resource. Therefore, there would not be direct effects to cultural resources.

3.10.5.2 CEQA Significance Determination

CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Previously recorded historical resources CA-IMP-7834 (Westside Main Canal) and CA-IMP-8489 (San Diego & Arizona Eastern Railroad) are located within the APE for the Route Alternative 2. Two recorded segments of CA-IMP-8489 were previously recommended eligible for the NRHP and CRHR based on the railroad’s role in the development of Imperial County and its integrity (Hupp 1999). The segments of these resources located within the Route Alternative 2 have not been evaluated for the NRHP or the CRHR. Based on project design, all poles will be constructed outside of and no closer than 50 ft from identified cultural resources. Access roads will be limited to new towers located to the north and south of CA-IMP-8489, but will not cross the railroad. Existing access roads will be used along the west side of the CA-IMP-7834 and will not cross this resource.

CR2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or a “historic

property” as defined under Section 106 of the NHPA. This includes the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.

Two previously recorded archaeological resources (CA-IMP-3176 and -8658) are located in Route Alternative 2. Both are temporary camps. Neither site appears to have been previously evaluated for eligibility for the CRHR or NRHP. Seven additional archaeological resources were identified during the current survey effort: CA-IMP-11437, -11449, -11444, -11445, -11448, -11449, and -11450. These consist of six lithic scatters and one historic period trash scatter. All identified cultural resources will be avoided.

CR3 Disturb any human remains, including those interred outside of formal cemeteries

No human remains have been previously identified within Route Alternative 2. No human remains were observed during the current survey effort. However, previously recorded sites and newly recorded sites within Route Alternative 2 have not been tested or evaluated for significance and buried deposits may be present. Therefore, the possibility of human remains in the area is present and would be a potentially significant impact if found.

3.10.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.10.6.1 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 Proposed Action. 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.

Based on project design, all pole locations will be located outside of identified cultural resources and all access routes and work spaces will be designed to avoid identified cultural resource. Therefore, there would not be direct effects to cultural resources. .

3.10.6.2 CEQA Significance Determination

CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Portions of CA-IMP-8489 (San Diego & Arizona Eastern Railroad) are located within the APE for the Proposed Action. Two segments were previously recorded and recommended eligible for the NRHP and CRHR based on the railroad’s role in the development of Imperial County and its integrity. The segment located within the Proposed Action has not been evaluated for the NRHP or the CRHR. Based on the project design CA-IMP-8489, the San Diego & Arizona Eastern Railroad, will be avoided. Based on project design, all poles will be constructed outside of and no closer than 50 ft from identified cultural resources. Access roads will be limited to new towers located to the north and south of CA-IMP-8489, but will not cross the railroad.

CR2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.

Seven archaeological sites are located within the area of direct impact for the Proposed Project. Two previously recorded sites (CA-IMP-8657 and -8658) consist of a prehistoric lithic and ceramic scatter and a temporary camp. The location of both sites within the APE was confirmed during the current survey effort. Neither site appears to have been previously evaluated for eligibility for the CRHR or for the NRHP. Five additional archaeological resources were identified during the current survey effort: CA-IMP-11427, -11438, -11441, -11442, and -11443. These consist of two multi-component sites, a historic trash scatter, a lithic scatter, and a lithic and groundstone scatter. Based on the project design, the Proposed Action will avoid all of the known cultural resources. However, in order to avoid CA-IMP-8657 and CA-IMP-8658 no new access road will be constructed in the right-of-way between towers on either side of these sites.

CR3 Disturb any human remains, including those interred outside of formal cemeteries

No human remains have been previously identified within the Proposed Action. No human remains were observed during the current survey effort. However, previously recorded sites and the newly recorded sites within the Proposed Action have not been evaluated for significance and buried deposits may be present. Therefore, the possibility of human remains in the area is present and would be a potentially significant impact if found.

3.10.7 Environmental Effects for the No Liebert Substation Alternative

3.10.7.1 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 Proposed Action.

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 would occur. Based on project design, all pole locations will be located outside of identified cultural resources and all access routes and work spaces will be designed to avoid identified cultural resource. Therefore, there would not be direct effects to cultural resources.

3.10.7.2 CEQA Significance Determination

CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Portions of CA-IMP-8489 (San Diego & Arizona Eastern Railroad) are located within the APE for the Proposed Action. Two segments were previously recorded and recommended eligible for the NRHP and CRHR based on the railroad’s role in the development of Imperial County and its integrity. The segment located within the Proposed Action has not been evaluated for the NRHP

or the CRHR. Based on the project design CA-IMP-8489, the San Diego & Arizona Eastern Railroad, will be avoided. Based on project design, all poles will be constructed outside of and no closer than 50 ft from identified cultural resources. Access roads will be limited to new towers located to the north and south of CA-IMP-8489, but will not cross the railroad.

CR2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.

Seven archaeological sites are located within the area of direct impact for the Proposed Project. Two previously recorded sites (CA-IMP-8657 and -8658) consist of a prehistoric lithic and ceramic scatter and a temporary camp. The location of both sites within the APE was confirmed during the current survey effort. Neither site appears to have been previously evaluated for eligibility for the CRHR or for the NRHP. Five additional archaeological resources were identified during the current survey effort: CA-IMP-11427, -11438, -11441, -11442, and -11443. These consist of two multi-component sites, a historic trash scatter, a lithic scatter, and a lithic and groundstone scatter. Based on the project design, the Proposed Action will avoid all of the known cultural resources. However, in order to avoid CA-IMP-8657 and CA-IMP-8658 no new access road will be constructed in the right-of-way between towers on either side of these sites.

CR3 Disturb any human remains, including those interred outside of formal cemeteries

No human remains have been previously identified within the Proposed Action. No human remains were observed during the current survey effort. However, previously recorded sites and the newly recorded sites within the Proposed Action have not been evaluated for significance and buried deposits may be present. Therefore, the possibility of human remains in the area is present and would be a potentially significant impact if found.

3.10.8 Environmental Effects for the No Action Alternative

3.10.8.1 Direct and Indirect Effects

As described in Section 2.7, 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 cultural resources would result. Therefore, under the No Action Alternative, no permanent or temporary adverse effects would occur.

3.10.8.2 CEQA Significance Determination

CR1 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Under the No Action Alternative, the Proposed Action would not be implemented or developed. No built environment historical resources or historic properties would be affected by this alternative. Therefore, no adverse effects to historic resources would result.

CR2 Cause a substantial change in the significance of a built environment resource as defined in Section 15064.5 of the CEQA Guidelines or a “historic property” as defined under Section 106 of the NHPA. This includes the destruction, disturbance, or any alterations of characteristics or elements of a historic resource that cause it to be significant in the manner not consistent with the Secretary of Interior Standards.

Under the No Action Alternative, the proposed project would not be implemented. Therefore, the proposed project would not be constructed. Implementation of the No Action Alternative would not require any physical change to the proposed project area. No archaeological resources or historic properties would be affected by this alternative.

CR3 Disturb any human remains, including those interred outside of formal cemeteries

Under the No Action Alternative, the proposed project would not be implemented. Therefore, the proposed project would not be constructed. Implementation of the No Action Alternative would not require any physical change to the proposed project area. No human remains would be directly affected by this alternative. Therefore, no adverse effects to human remains would result.

3.10.9 Mitigation Measures

CR-A: There are cultural resources which may be impacted due to their proximity to construction areas. Because these sites are located near areas being impacted by project construction, archaeological monitoring including temporary fencing and/or flagging around their perimeters will be required to ensure that project impacts remain within the proposed impact area and that cultural resources are avoided by project personnel. An archaeological monitoring and inadvertent discovery plan will be developed subject to review and approval by the BLM. In addition, grading within the construction area shall be performed in a manner that incorporates sheet flow and water runoff diversion techniques to prevent surface water from damaging off-site cultural sites.

CR-A1: In the event that unknown historic or archaeological resources are encountered during construction or operational repairs, archaeological monitors will be authorized to temporarily divert construction work within 100 feet of the area of discovery until the significance and the appropriate mitigation measures are determined by the BLM and a Registered Professional Archaeologist familiar with the resources of the region. The BLM will be immediately notified if such discoveries occur. The Applicant shall notify the County within 24 hours. The Applicant shall provide contingency funding sufficient to allow for implementation of avoidance measures or appropriate mitigation.

CR-A2: A long term archaeological monitoring plan will be developed subject to review and approval of the BLM to ensure that archaeological sites within the APE that could be subject to post construction operations and maintenance activities are monitored and protected for the life of the project.

CR-B: In the unlikely event that human remains are encountered during ground-disturbing activities, all ground-disturbing activities in the vicinity of the find shall be

stopped and the County Coroner, IID, and the BLM shall be notified. All parties involved shall ensure that any such remains are treated in a respectful manner and that all applicable state and Federal laws are followed. If human remains of Native American origin, associated grave goods, or objects of cultural patrimony are discovered on Federal property, the provisions of the Native American Graves Protection and Repatriation Act shall be followed. If human remains are found on private property, all work shall cease and the county coroner shall be contacted per the California Public Resources Code 5097.98 (b) and (e). Should the remains be identified as Native American, the Native American Heritage Commission shall be contacted within 48 hours to provide a Most Likely Descendent (MLD) to determine reburial practices for the remains.

3.11 PALEONTOLOGICAL RESOURCES

This section describes paleontological resource issues associated with the Proposed Action and alternatives. A description of relevant laws, regulations, and plans is provided for each resource value to address the regulatory setting for the project. The affected environment provides a narrative discussion of the prehistoric setting for the project area. In addition, the affected environment section describes potential paleontological sensitivity using the BLM Potential Fossil Yield Classification (PYFC) System that considers the paleontological yield potential of geologic units and the likelihood of activities in areas to disturb such resources. An impact analysis section (Section 3.11.3) is provided that describes the potential impacts of the Proposed Action, Route Alternatives 1 and 2, the Reduced Liebert Substation Alternative, No Liebert Substation Alternative, and the No Action Alternative on paleontological resources.

3.11.1 Relevant Laws, Regulations, and Plans

Federal

All proposed Federal actions are required to identify possible effects to significant paleontological resources that are potentially recoverable and are likely to be within the zone of expected surface disturbance or relatively close to the surface (BLM 2008). Per BLM Instruction Manual (IM) 2009-011 guidelines, a significant paleontological resource is any paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils. Paleontological resources that are considered to be of scientific interest include most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils (BLM 2008). A significant paleontological resource is considered to be scientifically important because it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on earth, or has identified educational or recreational value. For the purposes of this study, the direct and indirect effects of all surface activities were considered in order to determine the impact resulting from the Proposed Action.

Ground disturbing Federal actions on public and split-estate lands may cause direct adverse effects to paleontological resources through the damage or destruction of resources or the disturbance of the stratigraphic context in which they are located. Indirect adverse impacts may result from increased accessibility to resources leading to looting or vandalism activities. Land tenure adjustments may result in the loss of significant paleontological resources to the public if

fossils pass from public ownership; as such, under the FLPMA and NEPA, Federal actions and land tenure adjustments that may impact or result in a loss of paleontological resources on public or split-estate lands must be evaluated and necessary mitigation identified.

State

Several sections of the California Public Resources Code protect paleontological resources. Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any paleontologic feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted express permission. Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

Local

The County of Imperial General Plan does not specify any goals or objectives for paleontological resources. However, paleontological resources are a sub-category of cultural resources. The Conservation and Open Space Element of the General Plan contains a goal and objective to preserve cultural resources.

3.11.2 Affected Environment

The site of the Proposed Action and the surrounding Imperial Valley is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. These include extensive freshwater shell beds, fish, seeds, pollen, diatoms, foraminifera, sponges, and wood. Lake Cahuilla deposits have also yielded vertebrate fossils, including teeth and bones of birds, horses, bighorn sheep, and reptiles.

Methodology

A records search and literature review was conducted at the San Diego Natural History Museum (SDNHM) for the Proposed Action, all alternatives, and a one-mile buffer. One paleontological resource (locality) was previously identified within a one-mile radius of the Proposed Action. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates, all identified within Quaternary lake deposits associated with ancient Lake Cahuilla. Quaternary

refers to deposits or rock formations created during the Quaternary Period that began 2.5 million years ago and extends to the present. Based on the record search results, there is a range of sensitivity from low to high within the project area. In Holocene alluvium deposits, sensitivity to paleontological resources is considered low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high. Holocene is a geologic subdivision or series within the Quaternary Period and extends from approximately 10,000 years ago to present.

Potential Fossil Yield Classification (PFYC) System

The proposed project area is underlain by both Holocene (less than 10,000 years old) alluvial deposits and Quaternary lake sediments of the ancient Lake Cahuilla. The presence of Quaternary lake sediments suggests the possibility of disturbing fossil-yielding bedrock or alluvium that is near the surface and may contain significant paleontological resources that are potentially recoverable, more in-depth analysis is necessary. As such, the PFYC was utilized in this analysis. Originally developed by the USFS (1996), the PFYC was recently significantly revised and adopted as policy by the BLM (BLM 2007 and BLM 2008) to replace its previous resource management classification system. Per the PFYC System, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential. This classification is applied to the geologic unit (i.e., geologic formation), preferably at the most detailed mappable level. It is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher class; instead, the relative abundance of significant localities is intended to be the major determinant for the class assignment. A brief summary of the PFYC System (BLM 2008) follows.

Class 1 – Very Low: Includes geologic units that are not likely to contain recognizable fossil remains. The probability of impacting any fossils is negligible.

Class 2 – Low: Includes sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils.

Class 3 – Moderate or Unknown: Includes fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or sedimentary units of unknown fossil potential.

Class 4 – High: Includes geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented but may vary in occurrence and predictability.

Class 5 – Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at risk of human-caused adverse impacts or natural degradation.

CEQA Significance Criteria

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

- PR-1** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Existing Conditions

The Proposed Action site lies within the southern portion of the Salton Trough, a northwest-trending tectonic basin located between the Peninsular Ranges to the west and the Chocolate Mountains to the east. The Salton Trough is essentially a landward extension of the Gulf of California. Approximately 2,000 acres of the Trough lie below sea level (Deméré 2002).

The proposed project area is underlain by Holocene (less than 10,000 years old) alluvial deposits and Quaternary lake sediments of ancient Lake Cahuilla, a former freshwater lake, periodically inundated the Salton Trough between about 12,000 and 450 years ago. Holocene alluvial deposits do not represent a significant paleontological resource because of their relatively young age. Quaternary lake deposits, however, are a highly sensitive paleontological resource (Randall 2009). Resources identified within the Quaternary lake deposits of ancient Lake Cahuilla are considered to be unique, and therefore significant, due to the paleoclimatic and paleontological information that can be obtained (Jefferson 2006).

3.11.3 Environmental Effects for the Proposed Action

3.11.3.1 Direct and Indirect Effects

The paleontological sensitivity of each geologic unit to be impacted was evaluated using the PFYC System. The PFYC designations in the Proposed Action area is identified as Class 4b (SDNHM communication Jan 13, 2011) based on the high sensitivity of the geologic unit moderated by the protective covering of soil resulting in low exposure of bedrock. The geologic units that occur within the Proposed Action area have the potential to contain fossils of varying abundance and significance. The management concern for paleontological resources is considered to be moderate to high for the Proposed Action,.

No Paleontological resources have been previously identified within one-mile of the proposed action. The closest resource previously identified is approximately 15 miles to the northeast. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. In Holocene alluvium deposits, sensitivity to paleontological resources is low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high.

The Proposed Action would include some excavation for the installation of foundations for each transmission line pole and the foundations for the expanded Dixieland Substation as well as the new proposed Liebert Substation. While these excavations would occur in small areas (see total disturbance values in Table 2.8-1, Section 2.0), the precise location of fossils is unknown and it is possible that excavation activities could disturb a significant paleontological resource assigned a moderate to high classification, according to the PFYC System. Improvements to provide the maintenance road would not involve excavation; therefore, affects from this activity would not likely affect paleontological resources.

3.11.3.2 CEQA Significance Determination

PR-1 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. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake

Cahuilla. In Holocene alluvium deposits, sensitivity to paleontological resources is low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high.

Avoidance of impacts to paleontological resources is preferred. If paleontological resources are avoided, there would be no impacts. Mitigation Measures PR-A through PR-C would also apply to the proposed project, which would reduce impacts to less than significant at a minimum.

Mitigation Measures: A qualified paleontologist shall conduct a paleontological survey of the project area prior to commencement of ground disturbing activities. The procedures for survey, monitoring, investigating, and taking further action, if required, shall follow the five steps below in accordance with the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources."

PR-A Prior to grading or any ground disturbance, a paleontological field survey shall be conducted for the project site.

- 1. Definition of Field Surveys.** Field Surveys are pedestrian surveys to be performed in areas where significant fossils can be expected to occur within the boundary and immediate vicinity of the anticipated disturbance, or where the probability of encountering significant fossils is unknown.
 - i. Field surveys are performed prior to any surface disturbing activities. Before conducting field surveys, the project location shall be as final as possible and any staking of the location shall be complete.
 - ii. Surveys are to be conducted by a BLM-permitted consulting paleontologist hired by the project proponent.
 - (a) Surveys shall be performed by a consulting paleontologist holding a valid BLM Paleontological Resources Use Permit. Submission of reports may be done directly by the paleontologist to the BLM. The project proponent is also responsible for all costs associated with the survey, including the consulting paleontologist's fees and charges, all survey costs, fossil preparation to the basic identification stage, analyses, reports, and curation costs directly related to mitigation of the project's anticipated impacts. Any required monitoring and mitigation costs are also the responsibility of the project proponent. These costs are to be negotiated between the project proponent and the consulting paleontologist prior to beginning any data gathering, analysis, or field

work, and these negotiations do not require BLM involvement or approval. Any new, additional, or modified curation agreements between the paleontologist and the official repository must be in place prior to starting field work.

- (b) Authorization for a project to proceed cannot be given by a consulting paleontologist. Performance of the survey or submission of the report DOES NOT constitute approval for the project to proceed. The BLM must review the report, including adequacy of the field methods and findings. The Authorized Officer must approve the findings and determine the need for monitoring prior to approval to proceed.

2. Conducting Field Surveys. Field surveys must be performed by the Principal Investigator or an approved Field Agent or Field Monitor (as defined in the following section) as authorized under a Paleontological Resource Use Permit. Field surveys and collections performed as a mitigation measure are not intended to be scientific research studies, but are meant to identify, avoid, or recover paleontological resources to prevent damage or destruction from project activities. However, proper scientific techniques and procedures must be utilized during all mitigation efforts. Safety should be an important consideration; therefore, surveys should not be attempted on cliff faces, in open, non-reinforced trenches deeper than five feet, or other unsafe areas.

- i. The scope of the survey is dependent upon the scale of the project. Small projects are defined as less than 10 acres, or, if linear, less than five miles; large projects exceed those dimensions.
- ii. At the start of field work, the consulting paleontologist (paleontologist) must contact the Paleontology Coordinator in each affected Field Office who may require a visit to that office.

After an initial visit each year, the paleontologist may contact the Field Office by telephone or email prior to subsequent field trips, at the discretion of the Field Office. Information about the survey schedule, additional personnel, emergency field contact information, and any other pertinent data shall be provided to the Paleontology Coordinator. The Field Office will inform the paleontologist of any conditions that may impact the survey, such as fire danger or restrictions, drought restrictions, wildlife timing restrictions, management restrictions, road restrictions or construction, and any other relevant information.

- iii. During the field survey, the paleontologist surveys, locates, and documents all paleontological resources within 200 feet of the proposed project location or corridor, or less distance upon approval.
 - (a) Where significant paleontological resources are at risk, data collection alone does not constitute mitigation of damage. All significant fossils that may be damaged or destroyed during project activities must be collected, along with all relevant contextual and locational data. Specimens must be collected during the survey or prior to commencement of any surface-disturbing activities.
 - (b) In many cases, isolated gar scales, chelonid (turtle) carapace or plastron fragments, crocodile and fish teeth, and unidentifiable bone fragments do not need to be collected. The location must be recorded and a description of the fossil material noted in the field notes and on a BLM Locality Form as part of the report. The context of these types of fossils should be considered, as they may represent rare occurrences or unusual faunal associations, and thus may be scientifically important and must be documented and voucher specimens collected where appropriate.
 - (c) Occurrences of plant or invertebrate fossils should be recorded and representative examples or voucher specimens collected where appropriate. Additional mitigation measures may be appropriate in some cases for these types of localities.
 - (d) If a large specimen or a concentration of significant fossils is located during the field survey, the available time and/or personnel may not allow for full recovery during the survey. The specimen(s) and locality(ies) should be stabilized as needed, and a determination made as to whether avoidance is necessary or whether full recovery of the specimen is required at a later time prior to disturbance activities. The Authorized Officer and project proponent must be notified, the mitigation alternatives discussed including funding for recovery, and a decision reached as soon as possible. If avoidance or later recovery is selected for mitigation, the find should be stabilized, buried if needed to protect the fossils and context, and appropriate measures implemented to reduce adverse effects from natural or human causes.
- iv. During the survey, locations or areas that exhibit a lithology suggesting a high probability of subsurface fossil material must be recorded, and a recommendation for the need for on-site monitoring, spot-checking, or testing shall be made in the report. This may include areas where no fossil material was found on the surface during the

survey. The recommendation should consider the size and type of planned disturbance, such as the depth of a trenching operation or the acreage of surface disturbance.

- v. Surveys must be performed only during times when the ground is visible. Biological timing restrictions, such as critical nesting or birthing times, may confine or delay field activities.

3. Report of Survey Findings. After completion of the field survey, the paleontologist must file a written report with the BLM and once approved, with the designated repository. This report must summarize the results of the survey as well as appropriate geological and paleontological background information as described below. It should also include any recommendations for on-site monitoring or other mitigation. For small projects (less than 10 acres), the report must be filed within 30 days after completion of the survey unless specific approval for a different time frame has been received from the BLM. The time frame for submission of the report for large projects should be negotiated during project scoping. On a case-by-case basis, approval to begin project activities may be granted for those portions of the project area noted to be less paleontologically sensitive prior to final approval of the report.

- i. Reports of the general findings and the background information must be submitted to the BLM project manager or Authorized Officer (if appropriate), the Paleontology Lead or Regional Paleontologist, and each affected Field Office. Reports must include the information and details as specified on page 9 of Attachment 1 of the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources", as applicable.
- ii. Exact locations of fossil localities contained in these reports are considered sensitive and must not be included in any public document. The BLM locality form (8270-3) or equivalent, 1:24000 scale map showing the localities, and any other information containing specific fossil locations may be bound separately or placed in a separate section to allow for preservation of confidential locality data. A copy of this confidential section must be submitted to the Paleontology Lead (in some cases, two copies may be required). A copy for each affected Field Office may be required. Another copy must be submitted to the official repository with the collected materials.

iii. BLM GPS recording and data standards must be used to report paleontological locality data. Existing USGS topographic maps are often based on the NAD27 standard, so locality data calculated from a map base must be converted to NAD 83 before submission. Data must be recorded and reported with a mean error of +/-12.5 meters or less, at a 95 percent confidence level. For small localities, data should be reported as point data. Larger polygonal localities should be reported using coordinates of a centroid and a description of the approximate size, or the key coordinate points of a bounding polygon. Linear features, such as roads or surveyed project boundaries, must be reported as line data. The 1:24000 scale map(s) accompanying the locality forms should graphically illustrate the locality, either as a point or an outline of the locality as appropriate, and be clearly labeled with the locality or field number.

4. Report Approval. The Authorized Officer will analyze the Survey Report for adequacy within 30 working days of receipt. Notification accepting the report, or explaining any identified deficiencies, will be sent to the consulting paleontologist and the project proponent with a copy placed in the project file. Any deficiencies must be corrected as soon as possible, usually initiated within five working days, and the report must be resubmitted for approval. Any resubmissions must be prompt, but consideration will be made for the amount of time needed for major corrections. Deficiencies directly affecting the survey, such as inadequate survey procedures or incomplete data, must be corrected before granting approval for the project to proceed. Deficiencies not directly affecting the survey, such as curation issues, will not prevent approval of the project, but must be corrected as soon as possible.

PR-B Determination of Further Mitigation Requirements. Based on the field survey, the need for additional mitigation to protect paleontological resources shall be determined. The Authorized Officer, in consultation with Regional Paleontologist or the Paleontology Lead, shall analyze the Survey Report for survey findings and any mitigation recommendations. If no further mitigation is needed, the Authorized Officer will promptly notify the project proponent that there are no additional paleontological surveys or mitigation measures required, and the project may proceed pending any other approvals. The project file must be documented indicating acceptance of the survey report and identifying any additional mitigation requirements. If it is determined that additional mitigation efforts are needed to protect or preserve the paleontological resources, the project proponent will be notified as soon as possible. The Authorized Officer and/or the Paleontology Lead usually develop and approve the mitigation

procedures or recommend a project be redesigned in consultation with the project proponent. Factors such as locality or specimen significance, economics, safety, and project urgency will be considered when developing mitigation measures. Additional mitigation measures shall be developed and implemented as timely as possible so as not to delay project actions.

- A. Relocation.** The preferred mitigation technique is to change the project location based on the results of the field survey. Relocation, however, may necessitate a field survey of the new area, as well as resurveys by other resource specialists. Anticipation of this contingency prior to or during the original survey may allow for survey of an expanded area at the same time.

If relocation will eliminate impacts and is acceptable to all parties, then a report to the file, including a map showing the original and revised locations, must be completed documenting the change. Approval for the project to proceed in the revised location may then be granted by the Authorized Officer to the project proponent. When avoidance is not possible, appropriate mitigation may include excavation or collection (data recovery), stabilization, monitoring, protective barriers and signs, or other physical and administrative protection measures.

- B. Deferred Fossil Collection.** In some cases, fossil material may have been identified, but not completely collected during the initial field survey, such as a partial dinosaur or other large fossil assemblage. It may be possible to complete the recovery of this material and all related data prior to beginning construction activities, and thus mitigate the adverse impact. This may require a shift in the project schedule and must be coordinated with the project proponent.

Approval by the Authorized Officer for the project to proceed will only be granted when recovery of the fossil material and field data is completed. A report to the file and the project proponent documenting the recovery and indicating that no further mitigation is required must be completed, and the report signed by the Authorized Officer. If the discovery cannot be fully collected within the available time frame, it may have to be avoided by relocating or redesigning the project.

PR-C Based on the field survey and reporting results identified in step 1., a Monitoring Plan shall be developed and implemented (if required).

A monitoring plan must be developed by a qualified paleontologist hired by the proponent. The plan must be appropriately scaled to the size and complexity of the anticipated monitoring. If developed by a third party, the appropriate Paleontology Lead or Regional Paleontologist shall review the plan for sufficiency prior to acceptance. Monitoring of the project may proceed when the monitoring plan is approved by the Authorized Officer. A monitoring plan indicates the treatments recommended for the area of the proposed disturbance and must minimally address the following:

- i. The recommended approach to additional specimen collection, such as total or partial recovery or sampling; and,
- ii. The specific locations and intensity of monitoring or sampling recommended for each geologic unit, stratigraphic layer, or area impacted.

Monitoring intensity is determined based on the analysis of existing data and/or field surveys and any previous monitoring efforts.

Types of Monitoring. There are two types of monitoring: i) on-site, performed during ongoing operations, and ii) spot-checks, performed during or after disturbance, or at key times during the progress of the project.

- i. On-site monitoring – In areas with a high probability for buried fossils, the presence of a monitor at the site of disturbance at all times that disturbance is occurring may be warranted. The need for a full-time monitor is based on the findings of the survey, the local geology, and the proposed actions. Efforts will be made to complete fossil recovery with minimal work stoppage. However, in some cases, an extended period of work stoppage may be required, so coordination with the project proponent or representative is important. Prior to beginning the monitoring work, the monitor, company supervisor, and machinery operators shall agree on procedures for brief work stoppages to allow for examination of finds. It is critical that safety be of utmost concern because of the presence of heavy machinery and open trenches.

The monitor must assess any finds, collect loose fossil material and related data, and take appropriate steps to mitigate any current or potential damage. Consideration of

the size of the expected fossils must also be considered; for example, microfossils may not be visible during excavation activities. It may be appropriate to collect samples of matrix for later recovery of microvertebrate fossils or other analyses. Activities planned to occur during night time should be assessed relative to the potential to uncover significant fossils. Fossils may not be visible at night in trenching or grading operations, so construction activities may need to be suspended during night time in sensitive areas.

- ii. Spot-checking – In areas with a moderate to high probability for unknown fossil material, it may be more appropriate to check only at key times rather than maintain continuous monitoring of operations. Key times for scheduling spot-checking are when the fossil-bearing bedrock is exposed to view or prior to placing spoil material back into the excavation. Examples of these key times may be when a pipeline trenching operation is complete but before pipe is placed and the trench backfilled or prior to redistribution of topsoil. Spot-checking requires close coordination with the project proponent and the paleontologist, and usually requires the paleontologist to be available on short notice. In some instances, it may be advantageous to allow rain and/or wind to erode away loose matrix and concentrate fossil material to increase visibility. The paleontologist will coordinate with the project proponent to allow sufficient time for this action to occur, as appropriate to conditions, expected fossil material, and construction schedules.

The paleontologist should report potentially fossiliferous areas in the final report to allow for future assessment of sites, even if no fossils were located during the project monitoring.

Types of Field Personnel. It may be necessary to employ a number of paleontology field personnel simultaneously. There may be a lack of fully qualified paleontologists to perform all the necessary monitoring during the scheduled times of construction. Use of additional personnel for field work is permissible, but Field Agents and Field Monitors (described below) must be requested by the Permittee and authorized by the BLM prior to field work.

- i. Principal Investigator – The person listed as Permittee (Permit item 1a) on the Paleontological Resources Use Permit is the Principal Investigator (PI) and is responsible for all actions under the permit, for meeting all permit terms and

- conditions, and for the performance of all other personnel. This person is also the contact person for the project proponent and the BLM.
- ii. Field Agent – Other qualified paleontologists may perform field work independently of the PI under the conditions of this permit. Résumés must be submitted to BLM and must demonstrate qualifications equivalent to those of Permittees. Field Agents must be listed on the permit under “Name(s) of individual(s) responsible for planning, supervising, and carrying out fieldwork” (Permit item 8) or authorized in a separate letter from BLM. They must follow all the permit terms and conditions applicable to field work and must carry a copy of the permit, included terms and conditions, and separate authorizing letter (if used) while in the field. Field work results must be reported to the PI, who will then submit required reports.
 - iii. Field Monitor – Field Monitors may be utilized for supplemental on-site monitoring of surface-disturbing activities when the PI or a Field Agent is performing field work elsewhere. Field Monitors must have sufficient field experience to demonstrate acceptable knowledge of fossil identification, collection methods, and paleontological techniques. The PI must supply a summary of each person’s experience to the BLM prior to field work. Field Monitors must be approved by the BLM prior to performing field work and must carry a copy of the permit while in the field. The PI or Field Agent must be in communication with the Field Monitor using a portable communication device, such as a cell phone or two-way radio, and are required to be near enough to the Field Monitor to allow for prompt examination of all fossil discoveries (no more than two hours away) by the PI or Field Agent.
 - iv. Field Assistant – Additional personnel not meeting the previously cited experience or knowledge levels may be utilized during field work, but must be under direct, on-site supervision of either the PI or a Field Agent as part of a supervised crew. Field assistants must have at least four to eight hours of training or experience received from a qualified paleontologist in identifying paleontological resources prior to performing field work or when first utilized in this capacity. A listing of all Field Assistants (including contact information) must be supplied prior to any field work. All discoveries made by a Field Assistant must be immediately reported to the PI or Field Agent on site. To ensure proper supervision, an appropriate ratio of Field Assistants per PI or Field Agent must be maintained. The complexity of the project, the area to be covered, and the experience of the assistants are some of the factors that

should be considered in determining the proper ratio, but commonly five to seven assistants is the maximum number that can be supervised by one PI or Field Agent.

Work Stoppage. If significant fossil material is discovered during construction activities, the PI, Field Agents, and Field Monitors have the authority to temporarily halt surface disturbing actions until an assessment of the find is completed and appropriate protection measures taken. Efforts will be made to complete fossil recovery with minimal work stoppage. However, in some cases, an extended period of work stoppage may be required. If the paleontological resource can be avoided, mitigated, or collected within approximately two hours, work may resume after approval from the PI or Field Agent, and the Authorized Officer must be notified as soon as possible of the discovery and any mitigation efforts that were undertaken. If the find cannot be mitigated within a reasonable time (two hours), the concurrence of the Authorized Officer or official representative for a longer work stoppage must be obtained. Work may not resume until approval is granted from both the PI or Agent and the Authorized Officer.

- 3. Upon completion of all field work, including survey and monitoring, the PI must submit within 30 days, a written final report to the Authorized Officer, Paleontology Lead, and the designated repository.** A copy of the report may be provided to the project proponent if required, but without the BLM Locality forms. Reports must include the details and information as specified on page 14 of Attachment 1 of the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources", as applicable.
- 4. When the final report with the specimen inventory and the signed receipt of confirmation of museum deposition are accepted by the BLM, mitigation for paleontological resources related to the project will be considered completed.** The project proponent will be notified in writing as soon as possible by the Authorized Officer after consulting with the Paleontology Lead or Regional Paleontologist and a copy of the notification placed in the project file.

The responsibility of the project proponent ends when appropriate mitigation related directly to the project is completed and final approval is received from the Authorized Officer. Any additional field collection, quarrying, final specimen preparation, etc. will be considered to be research, and will be the responsibility of the consulting paleontologist or another approved party. The project proponent will not be held responsible for completion of any research project. However, the project proponent can

choose to sponsor further research. A separate research permit will be required for additional research activities.

- 5. Fossil specimens and related data collected from public lands during field surveys and mitigation remain the property of the Federal government.** They must be placed in the approved repository(s) identified on the Paleontological Resource Use Permit held by the consulting paleontologist as soon as practical and receipt(s) of collections submitted to the BLM, but no later than 60 days after all field work is completed. Written approval from the Paleontology Lead or Regional Paleontologist is required if additional time is needed for transfer of all specimens and field data.

3.11.4 Environmental Effects for Route Alternative 1

3.11.4.1 Direct and Indirect Effects

As with the Proposed Action this alternative would include some excavation for the installation of foundations for each transmission line pole and the foundations for the expanded Dixieland Substation and the proposed Liebert Substation. While these excavations would occur in small areas (see total disturbance values in Table 2.8-1, Section 2.0), the precise location of fossils is unknown and it is possible that excavation activities could disturb a significant paleontological resource assigned a moderate to high classification, according to the PFYC System. Improvements to provide the maintenance road would not involve excavation; therefore, affects from this activity would not likely affect paleontological resources.

3.11.4.2 CEQA Significance Determination

- PR-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature**

No Paleontological resources have been previously identified within one-mile of this alternative. The closest resource previously identified is approximately 15 miles to the northeast. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. In Holocene alluvium deposits, sensitivity to paleontological resources is low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high.

Avoidance of impacts to paleontological resources is preferred. If paleontological resources are avoided, there would be no impacts. Mitigation Measures PR-A through PR-C would also apply to this alternative, which would reduce impacts to less than significant at a minimum.

Mitigation Measures PR-A through PR-C.

3.11.5 Environmental Effects for Route Alternative 2

3.11.5.1 Direct and Indirect Effects

As with the Proposed Action this alternative would include some excavation for the installation of foundations for each transmission line pole and the foundations for the expanded Dixieland Substation as well as the proposed Liebert Substation. While these excavations would occur in small areas (see total disturbance values in Table 2.8-1, Section 2.0), the precise location of fossils is unknown and it is possible that excavation activities could disturb a significant paleontological assigned a moderate to high classification, according to the PFYC System. Improvements to provide the maintenance road would not involve excavation; therefore, affects from this activity would not likely affect paleontological resources. Excavation in areas of moderate to high PFYC System concern are reduced under this alternative because a approximately 50% of the alignment parallels the existing Westside Main Canal and adjacent to agricultural operations.

3.11.5.2 CEQA Significance Determination

PR-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

No Paleontological resources have been previously identified within one-mile of this alternative. The closest resource previously identified is approximately 15 miles to the northeast. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. In Holocene alluvium deposits, sensitivity to paleontological resources is low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high.

Avoidance of impacts to paleontological resources is preferred. If paleontological resources are avoided, there would be no impacts. Mitigation Measures PR-A through PR-C would also apply to this alternative, which would reduce impacts to less than significant at a minimum.

3.11.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.11.6.1 Direct and Indirect Effects

As with the Proposed Action this alternative would include some excavation for the installation of foundations for each pole and the foundations for the expanded Dixieland Substation, though excavation amounts would be reduced for the Liebert Substation. While these excavations would occur in small areas (see total disturbance values in Table 2.8-1, Section 2.0), the precise location of fossils is unknown and it is possible that excavation activities could disturb a significant paleontological resource assigned a moderate to high classification according to the PFYC System. Improvements to provide the maintenance road would not involve excavation; therefore, affects from this activity would not likely affect paleontological resources.

3.11.6.2 CEQA Significance Determination

PR-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

No Paleontological resources have been previously identified within one-mile of this alternative. The closest resource previously identified is approximately 15 miles to the northeast. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. In Holocene alluvium deposits, sensitivity to paleontological resources is low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high.

Avoidance of impacts to paleontological resources is preferred. If paleontological resources are avoided, there would be no impacts. Mitigation Measures PR-A through PR-C would also apply to this alternative, which would reduce impacts to less than significant at a minimum.

3.11.7 Environmental Effects for the No Liebert Substation Alternative

3.11.7.1 Direct and Indirect Effects

As with the Proposed Action this alternative would include some excavation for the installation of foundations for each pole and the foundations for the expanded Dixieland Substation, though excavation associated with the Liebert Substation would not occur. While these excavations

would occur in small areas (see total disturbance values in Table 2.8-1, Section 2.0), the precise location of fossils is unknown and it is possible that excavation activities could disturb a paleontological resource based on the moderate to high finding concluded from the PFYC System. Improvements to provide the maintenance road would not involve excavation and are not likely to affect paleontological resources.

3.11.7.2 CEQA Significance Determination

PR-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

No Paleontological resources have been previously identified within one-mile of this alternative. The closest resource previously identified is approximately 15 miles to the northeast. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. In Holocene alluvium deposits, sensitivity to paleontological resources is low, while sensitivity to paleontological resources in Quaternary lake deposits is considered high.

Avoidance of impacts to paleontological resources is preferred. If paleontological resources are avoided, there would be no impacts. Mitigation Measures PR-A through PR-C would also apply to this alternative, which would reduce impacts to less than significant at a minimum.

3.11.8 Environmental Effects for the No Action Alternative

3.11.8.1 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.

3.11.8.2 CEQA Significance Determination

PR-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Under the No Action Alternative, the proposed project would not be implemented. Therefore, the proposed project would not be constructed. Implementation of the No Action Alternative would not require any physical change to the proposed project area. No paleontological resources would

be directly affected by this alternative. Therefore, no adverse effects to paleontological resources would result.

3.11.9 Mitigation Measures

A qualified paleontologist shall conduct a paleontological survey of the project area prior to commencement of ground disturbing activities. The procedures for survey, monitoring, investigating, and taking further action, if required, shall follow the five steps in accordance with the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources." Mitigation Measures PR-A through PR-C shall be implemented as applicable.

3.11.10 Residual Impacts After Mitigation

Paleontological resource impacts would be reduced to less-than-significant levels under CEQA by implementation of Mitigation Measures PR-A through PR-C.

3.12 SOCIOECONOMIC CONDITIONS AND ENVIRONMENTAL JUSTICE

The following discussion takes into account the project's potential to result in impacts to socioeconomic conditions and environmental justice. The Council on Environmental Quality (CEQ) publishes guidance on the analysis of such impacts (Council on Environmental Quality 1997). The general methodology recommended by this guidance is to (1) determine the maximum extent of potentially adverse effects to human health and the environment, (2) identify whether minority or low-income population groups are present within the affected area, and (3) assess any disproportionately high adverse effects on those groups.

3.12.1 Relevant Laws, Regulations, and Plans

Executive Order 12898 requires Federal agencies to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations. Impacts to environmental justice are those that have the potential to result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

As defined by NEPA, specific environmental effects to be examined include “economic” and “social” effects (CFR § 1502.16 and 40 CFR § 1508.8). Taken together, the term socioeconomics encompasses these effects and describes the basic attributes of and resources in the human environment. Specifically, these attributes and resources include and emphasize population, housing, employment, and personal income. The characteristics of the human environment in these topical areas, known as indicators, are examined in the project area in this section. Indicators are relevant since substantial changes in these topical areas may result in changes to other economic and social activities, such as the provision of services and utilities as well as the availability and price of housing. In addition, other environmental impacts may be experienced as socioeconomic impacts as a result of changes they create through positive or negative project-related attributes that contribute to the character of the human environment in the community or region.

3.12.2 Affected Environment

Methodology

The range over which such socioeconomic changes resulting from a project can occur over differently-sized areas, depending on the phase of the project and the nature of the changes

induced by the project. In the case of this project, the socioeconomic Region of Influence (ROI) is defined by the U.S. Census Bureau tract and block groups which are traversed by the project. 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.

CEQA Significance Criteria

This economic analysis is part of the CEQA and NEPA environmental documentation for the Proposed Action. For CEQA and NEPA analyses, social and economic changes resulting from a project are addressed differently than physical environmental effects, and furthermore, somewhat differently under CEQA than under NEPA. CEQA does not consider economic or social changes resulting from a project as adverse effects on the environment. If a physical change in the environment is caused by economic or social effects, the physical change may be regarded as an adverse effect. Because the economic effects of project components do not change the physical environment, a CEQA analysis is not necessary.

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.

Significant impacts involving environmental justice are not discussed under CEQA. However, 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 would have a significant impact, pursuant to CEQA, involving socioeconomics if the project would:

- SC-1** 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).
- SC-2** Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- SC-3** Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Existing Conditions

Population

Table 3.12-1 presents populations and demographic information for the Census tract and block groups within the socioeconomic ROI. For comparison, information on Imperial County is also provided, which is the county to which both ROI areas belong. As demonstrated by the table, both areas differ substantially from each other and from County-level demographics, particularly in the percentage of White and Black or African-American residents. In the case of Tract 123.01, Block Group 1, this difference can be explained by the presence of Centinela State Prison in the area. Prisons generally contain a different distribution of demographic characteristics compared to surrounding areas. However, both areas in the ROI are similar to Imperial County as a whole in terms of relatively low percentages of American Indian or Alaska Natives and Asian, Native Hawaiian and Pacific Islanders, as well as a majority of Hispanic or Latino residents.

Housing, Households, and Employment

The Population in Housing Units and Types of Occupancy table presents information on total numbers of housing units, overall occupancy of housing units, occupancy by owners and occupancy by renters for the ROI and for Imperial County. Table 3.12-2 shows that Tract 111.00, Block Group 4's percentage of occupied units is similar to Imperial County's percentage in this category, while Tract 123.02, Block Group 1 has a lower percentage of occupied units. In terms of owner occupied units, both areas in the ROI have higher percentages of owner-occupied units than the county average. Finally, Tract 123.01, Block Group 1 contains a similar proportion of renter-occupied units to the county average, while renter-occupied units in Tract 111.00,

Block Group 4 contains a lower proportion of renter-occupied units compared to the County as a whole.

**Table 3.12-1
Demographic Data: Population, Race, and Ethnicity, 2009**

	Imperial County		Tract 123.01-BG1		Tract 111.00-BG4	
	Pop.	%	Pop.	%	Pop.	%
Race						
White	114,021	71.25	2,518	46.10	796	95.22
Black, or African-American	5,783	3.61	1,351	24.73	11	1.32
American Indian or Alaska Native	2,628	1.64	22	0.40	0	0
Asian	3,334	2.08	171	3.13	5	0.60
Native Hawaiian and Pacific Islander	144	0.09	11	0.20	0	0
Some other race	30,164	18.85	1,238	22.67	21	2.51
Two or more races	3,960	2.47	151	2.76	3	0.36
Total Population	160,034	100	5,462	100	836	100
Hispanic or Latino*	121,781	76.10	2,868	52.51	433	51.79

Source: U.S. Census Bureau 2010

**Table 3.12-2
Housing Units and Types of Occupancy, 2009**

	Imperial County		Tract 123.01-BG1		Tract 111.00-BG4	
	No.	%	No.	%	No.	%
Total Housing Units	52,889	100	423	100	358	100
Occupied Units	46,405	87.74	242	57.21	302	84.36
Owner Occupied Units	26,261	49.65	143	59.09	226	74.83
Renter Occupied Units	20,144	38.09	99	40.91	76	25.17

Source: U.S. Census Bureau 2010

Table 3.12-3 contains information on household type by household size for the ROI and Imperial County as a whole. The percentage of married-couple family households in the ROI is higher than that in the County overall, while the percentage of family households with male householders and no wife present is the same across both regions in the ROI, and substantially lower than the percentage of family households with male householders and no wife present. Again, percentages of households with female householders and no husband present were similar between the regions in the ROI, but substantially lower than the percentages of households in this category at the county level. Finally, Tract 111.00, Block Group 4's percentage of non-family households is very similar to the percentage of non-family households at the county level, while the percentage of non-family households in Tract 123.01, Block Group 1 was substantially higher than the percentage of these households in the rest of the ROI and the county as a whole.

The presence of the Naval Air Facility-El Centro is a factor that likely contributes to the lower number of households with no wife present and the percentage of non-family households in Tract 123.01, Block Group 1 that is larger than average.

**Table 3.12-3
Housing Units and Types of Occupancy, 2009**

	Imperial County		Tract 123.01-BG1		Tract 111.00-BG4	
	No.	%	No.	%	No.	%
Total Households	46,405	100	242	100	302	100
Family Households (Married-Couple Family)	25,190	54.28	153	63.22	240	79.47
Family Households (Male Householder, no wife present)	2,489	5.36	0	0	0	0
Family Households (Female Householder, no husband present)	9,459	20.38	21	0.087	2	0.007
Nonfamily households	9,267	19.97	68	28.10	60	19.87

Source: U.S. Census Bureau 2010

Imperial County's economy is driven by activity in the agricultural, government and retail sectors. However, the presence of both Centinela State Prison and the Naval Air Facility-El Centro contribute to creating indicator conditions in the ROI that differ from county-level indicators. Since block group-level data were not available for this indicator, tract-level data were substituted as shown in Table 3.12-4. In the case of Tract 123.01, the low overall number of people in the civilian work force despite the population of the tract can be explained by the presence of the Centinela State Prison. Given the low percentage of the population in the workforce in this area, the low percentage of unemployed workers is understandable. For Tract 111.00, the number of employed civilians is greater than the population figures cited in section 1 because the employment values are drawn from the tract level, not the block group level as for population.

**Table 3.12-4
Estimated Total Employment (2005-2009)**

	Imperial County	Tract 123.01	Tract 111.00
Estimated Total Civilian Employment	54,276	277	1402
Estimated Total Civilian Unemployment	7,735	8	104
Percent Unemployed (Total Civilian Labor Force)	12.47	2.89	7.42

Source: U.S. Census Bureau 2010

The limits of the proposed project intersect and overlap two census blocks within Imperial County. A buffer around the project limits, drawn to include potential impacts from traffic circulation, air quality, and noise, serves as the extent of the analysis area for potential impact to

environmental justice. This area extends approximately 0.5 mile out from the direct impact area. Both census block groups are large and contain relatively small populations compared to the more urban census blocks nearer the city of El Centro to the east.

Low-Income Populations

Consistent with CEQ guidelines, low-income populations are identified using Census Bureau data relating income to poverty level. An income-to-poverty level ratio of 1.00 indicates the selected population is at the poverty line, whereas a ratio of less than 1.00 indicates the population is living below the poverty line.

The countywide level for people living at or below the poverty level is 22.6 percent. The census block groups surrounding the project site experience poverty levels lower (6 and 14 percent) than that for the county overall (U.S. Census Bureau 2009).

Minority Populations

Per CEQ guidelines, a minority population is present when minority individuals (those of American Indian or Alaskan Native, Asian or Pacific Islander, Black, or Hispanic descent) exceed 50 percent of the overall population, or are present in meaningfully greater numbers than the general population. Table 3.12-5 identifies the relative presence of minority populations within the census block groups near the project.

**Table 3.12-5
Minority Populations in the Project Vicinity**

Imperial County – Block Groups	% Nonwhite
123.01 – Block Group 1	77%
111.00 – Block Group 4	77%

Source: U.S. Census Bureau 2009

Minority populations near the project area within Imperial County are largely dominated by people of Hispanic origin. The minority population exceeds 50 percent in both census blocks nearest the project area.

3.12.3 Environmental Effects for the Proposed Action

3.12.3.1 Direct and Indirect Effects

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.

3.12.3.2 CEQA Significance Determination

- SC-1 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.**

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.

SC-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

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.

SC-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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.

3.12.4 Environmental Effects for Route Alternative 1

3.12.4.1 Direct and Indirect Effects

As described in Section 2.3, 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 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.

3.12.4.2 CEQA Significance Determination

SC-1 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.

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

SC-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

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.

SC-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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.

3.12.5 Environmental Effects for Route Alternative 2

3.12.5.1 Direct and Indirect Effects

As described in Section 2.4, 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 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.

3.12.5.2 CEQA Significance Determination

SC-1 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.

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

SC-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

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.

SC-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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.

3.12.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.12.6.1 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.

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.

3.12.6.2 CEQA Significance Determination

SC-1 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.

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.

SC-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

The Reduced Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of existing housing during construction or operations.

SC-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The Reduced Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of people during construction or operations.

3.12.7 Environmental Effects for the No Liebert Substation Alternative

3.12.7.1 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.

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.

3.12.7.2 CEQA Significance Determination

SC-1 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.

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.

SC-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of existing housing during construction or operations.

SC-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The No Liebert Substation Alternative would follow the same approximate alignment as the Proposed Action and would not displace substantial numbers of people during construction or operations.

3.12.8 Environmental Effects for the No Action Alternative

3.12.8.1 Direct and Indirect Effects

As described in Section 2.7, 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.

3.12.8.2 CEQA Significance Determination

SC-1 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.

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.

SC-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no displacement of existing housing. No impacts related to construction of replacement housing would occur.

SC-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Under the No Action Alternative, no new transmission line or substation improvements would be constructed and, therefore, no displacement of people. No impacts related to construction of replacement housing would occur.

3.12.9 Mitigation Measures

No mitigation measures are required.

3.12.10 Residual Impacts After Mitigation

The impact to socioeconomic conditions and environmental justice would be less than significant.

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3.13 TRANSPORTATION AND TRAFFIC

This section addresses transportation and traffic issues in the vicinity of the project. A discussion of relevant laws, regulations, and plans is provided. The affected environment section describes existing conditions in terms of transportation facilities in the project area. Lastly, the impact analysis section describes potential impacts on transportation and traffic from implementation of the Proposed Action, Route Alternative 1, Route Alternative 2, the Reduced Liebert Substation Alternative, the No Liebert Substation Alternative, and the No Action Alternative, including a discussion of cumulative impacts in Chapter 4.0.

3.13.1 Relevant Laws, Regulations, and Plans

Use of public roads in the project area is subject to regulation by the California Vehicle Code and enforced by the sheriffs' departments of Imperial County. Planning and improvement of major local roads is under the jurisdiction of the Imperial County Department of Public Works. Caltrans administers the planning and improvement of freeways and State highways. Policies and programs for improvement to regional transportation, congestion management, design standards, and capacities of major circulation routes, and alternative transportation modes are provided in the General Plan Circulation Elements of the County of Imperial (2008b).

3.13.2 Affected Environment

CEQA Significance Criteria

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

- TR-1** Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system
- TR-2** Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways
- TR-3** 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
- TR-4** Substantially increase hazards due to a design feature or incompatible uses
- TR-5** Result in inadequate emergency access

TR-6 Result in inadequate parking capacity

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

Existing Conditions

The project area is generally a rural area containing few public roadways. There are two primary east-west roadways that cross the project alignments. I-8 is a primary east/west route between Yuma, Arizona, and San Diego, California, that consists of two travel lanes in each direction. Paralleling I-8 to the north is Evan Hewes Highway, a two-lane undivided roadway. In addition to these two primary public roadways, there are numerous private roads within the project area that are used in support of agricultural operations in this area.

3.13.3 Environmental Effects for the Proposed Action

3.13.3.1 Direct and Indirect Effects

As discussed in further detail below, 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.

3.13.3.2 CEQA Significance Determination

TR-1 Increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system

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, as shown on Figure 2.1-5. 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.

TR-2 Exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways

The Proposed Action would typically involve not more than 40 average daily trips for construction workers and supply deliveries over an 8-month construction period. Once the project is constructed, approximately four trips per year would be required for operations and maintenance activities. This level of 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.

TR-3 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

As noted previously in Section 3.9, Health and Safety/Hazardous Materials, the closest private or public airfields are at least 9 miles away from the project area and would not be affected by this project. Implementation of the Proposed Action would add a new transmission line in an area containing existing transmission poles and towers. The project would not cause a change in air traffic patterns and would have no impact to air traffic patterns, levels, or locations.

TR-4 Substantially increase hazards due to a design feature or incompatible uses

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. 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, the project would have no impact involving a roadway design feature or incompatible uses.

TR-5 Result in inadequate emergency access

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 would have less-than-significant impacts on emergency access.

TR-6 Result in inadequate parking capacity

The Proposed Action 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.

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

The Proposed Action is to construct a transmission line in an area of little development. Construction, operation, and maintenance of the line 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. For these reasons, there would be no impact on alternative transportation policies, plans, or programs.

3.13.4 Environmental Effects for Route Alternative 1

3.13.4.1 Direct and Indirect Effects

As discussed below in further detail, Route Alternative 1 would have similar effects to construction and operational traffic to local roadways, emergency access, and parking as the Proposed Action. Route Alternative 1 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, Route Alternative 1 would not result in direct or indirect adverse effects to transportation and traffic.

3.13.4.2 CEQA Significance Determination

TR-1 Increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system

The construction, operation, and maintenance of 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. This impact would be less than significant.

TR-2 Exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways

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.

TR-3 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

As with the Proposed Action, implementation of Route Alternative 1 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.

TR-4 Substantially increase hazards due to a design feature or incompatible uses

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. 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.

TR-5 Result in inadequate emergency access

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. For these reasons, this alternative would have less-than-significant impacts on emergency access.

TR-6 Result in inadequate parking capacity

As with the Proposed Action, Route Alternative 1 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.

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

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. Any subsequent operational traffic related to maintenance would be very minor, and alternative transportation programs would not be relevant. For these reasons, there would be no impact on alternative transportation policies, plans, or programs.

3.13.5 Environmental Effects for Route Alternative 2

3.13.5.1 Direct and Indirect Effects

As discussed in further detail below, Route Alternative 2 would have similar effects to construction and operational traffic to local roadways, emergency access, and parking as the Proposed Action. Route Alternative 2 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, Route Alternative 2 would not result in direct or indirect adverse effects to transportation and traffic.

3.13.5.2 CEQA Significance Determination

TR-1 Increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system

The construction, operation, and maintenance of 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. This impact would be less than significant.

TR-2 Exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways

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.

TR-3 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

As with the Proposed Action, implementation of Route Alternative 2 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.

TR-4 Substantially increase hazards due to a design feature or incompatible uses

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. 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.

TR-5 Result in inadequate emergency access

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. For these reasons, this alternative would have less-than-significant impacts on emergency access.

TR-6 Result in inadequate parking capacity

As with the Proposed Action, Route Alternative 2 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.

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

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. Any subsequent operational traffic related to maintenance would be very minor, and alternative transportation programs would not be relevant. For these reasons, there would be no impact on alternative transportation policies, plans, or programs.

3.13.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.13.6.1 Direct and Indirect Effects

As discussed in further detail below, the Reduced Liebert Substation Alternative would have similar effects to construction and operational traffic to local roadways, emergency access, and parking as the Proposed Action. The Reduced 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 Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to transportation and traffic.

3.13.6.2 CEQA Significance Determination

TR-1 Increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system

The construction, operation, and maintenance of the Reduced 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.

TR-2 Exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways

The Reduced 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.

TR-3 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

As with the Proposed Action, implementation of the Reduced 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.

TR-4 Substantially increase hazards due to a design feature or incompatible uses

Similar to the Proposed Action, the Reduced 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.

TR-5 Result in inadequate emergency access

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, this alternative would have less-than-significant impacts on emergency access.

TR-6 Result in inadequate parking capacity

As with the Proposed Action, the Reduced 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.

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

Similar to the Proposed Action, construction, operation, and maintenance of the Reduced 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. For these reasons, there would be no impact on alternative transportation policies, plans, or programs.

3.13.7 Environmental Effects for the No Liebert Substation Alternative

3.13.7.1 Direct and Indirect Effects

As discussed in further detail below, 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.

3.13.7.2 CEQA Significance Determination

TR-1 Increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system

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.

TR-2 Exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways

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.

TR-3 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

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.

TR-4 Substantially increase hazards due to a design feature or incompatible uses

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.

TR-5 Result in inadequate emergency access

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.

TR-6 Result in inadequate parking capacity

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.

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

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. For these reasons, there would be no impact on alternative transportation policies, plans, or programs.

3.13.8 Environmental Effects for the No Action Alternative

3.13.8.1 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.

3.13.8.2 CEQA Significance Determination

TR-1 Increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system

Under the No Action Alternative, the project would not be implemented and no short-term or long-term traffic would be generated. No impacts to the existing street system would result.

TR-2 Exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways

Under the No Action Alternative, no changes to roadway levels of service would occur because the Proposed Action would not be implemented and no traffic would be generated. No impact would result from the No Action Alternative.

TR-3 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

Under the No Action Alternative, the project would not be implemented and no changes involving air traffic patterns, traffic levels, or safety would result. Implementation of this alternative would have no impact.

TR-4 Substantially increase hazards due to a design feature or incompatible uses

Under the No Action Alternative, the transmission line project would not be implemented. No potentially hazardous design features would be created and no incompatible land uses would occur in the project area. Implementation of the No Action Alternative would have no impact.

TR-5 Result in inadequate emergency access

Under the No Action Alternative, there would be no changes to emergency access in the project area because a transmission line would not be constructed. The No Action Alternative would have no impact on emergency access.

TR-6 Result in inadequate parking capacity

Under the No Action Alternative, no construction activities would occur and no parking for construction workers would be needed. For these reasons, there would be no impact on parking.

TR-7 Conflict with adopted policies, plans, or programs supporting alternative transportation

Under the No Action Alternative, no construction activities would occur and no new traffic would be generated. There would be no basis for any conflicts with policies, plans, or programs related to alternative transportation. No impacts would occur.

3.13.9 Mitigation Measures

No mitigation measures are required.

3.13.10 Residual Impacts After Mitigation

The impact to transportation and traffic would be less than significant.

3.14 RECREATION

This section addresses recreation resources issues in the vicinity of the proposed IID transmission line project. A discussion of relevant laws, regulations, and plans is provided to describe the regulatory background for analysis of recreation resource issues in the project area. The affected environment section describes existing conditions in terms of recreation resources. The impact analysis section describes potential impacts on recreation resources from implementation of the Proposed Action and the project alternative transmission line alignments, and also from the No Action Alternative. A discussion of cumulative impacts on recreation resources is also provided in Chapter 4.0.

3.14.1 Relevant Laws, Regulations, and Plans

California Desert Conservation Area Plan

The CDCA Plan (BLM, 1980, as amended) recognizes that the California desert is "...a reservoir of open space and as a place for outdoor recreation" (CDCA Plan, BLM, 1980, page 69). The CDCA Plan notes that the diverse landscape of the California desert provides for a variety of physical settings. Further, the CDCA Plan identifies the wide variety of desert recreation uses ranging from off-road vehicles to outdoor preservationists, and the increasing challenge to accommodate these varied and sometimes competing uses. The transmission line corridor site located within BLM land is designated as Utility Corridor "N" and is not used by OHV enthusiasts. However, there is a potential that BLM land that surrounds the site is used by OHVs.

The management goals of the CDCA Plan Recreation Element are to:

- (1) Provide for a wide range of quality recreation opportunities and experiences emphasizing dispersed undeveloped use.
- (2) Provide a minimum of recreation facilities. Those facilities should emphasize resource protection and visitor safety.
- (3) Manage recreation use to minimize user conflicts, provide a safe recreation environment, and protect desert resources.
- (4) Emphasize the use of public information and educational techniques to increase public awareness, enjoyment, and sensitivity to desert resources.

- (5) Adjust management approach to accommodate changing visitor use patterns and preferences.
- (6) Encourage the use and enjoyment of desert recreation opportunities by special populations, and provide facilities to meet the needs of those groups.

The transmission line corridor would be located within an area currently designated by the BLM as Utility Corridor “N”, which consists of existing transmission lines and towers. The proposed transmission line would be installed adjacent to the existing lines to the extent possible and the lines and towers would be similar to the existing transmission lines in the area. The purpose of the Utility “N” Corridor is to allow a designated area within the BLM lands for utility structures such as transmission lines and to group them together in one area rather than allow them to be scattered throughout BLM lands. The BLM lands adjacent to the Utility Corridor “N” can be used for OHV 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.

The *Western Colorado Desert Routes of Travel Designations* (WECO) is an amendment to the CDCA Plan. There are no open routes designated on the transmission line corridor site (Figure 3.14-1).

3.14.2 Affected Environment

CEQA Significance Criteria

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

- RE-1** Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas;
- RE-2** 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;

- RE-3** Diminish the enjoyment of existing recreational opportunities.
- RE-4** 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,
- RE-5** 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.

Existing Conditions

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 recreational uses. For this reason, completion of the Proposed Action would have no potential to divide existing recreation resources. The site consists of a transmission line corridor located on desert land under the jurisdiction of the BLM. Therefore, the primary of focus of the recreation section in this EIR/EA will be on the transmission line corridor located within BLM lands.

California Desert Conservation Area Plan

As discussed above, 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).

California State Parks

In addition, California State Parks (CSP) administers several recreation areas in the general vicinity of the overall project site. Those areas are described in Table 3.14-1.

Imperial County

The majority of the land in Imperial County is designated as Open Space/Recreation according to the County's General Plan Land Use Map. The open space and recreations areas under BLM

management in the project area is designated as “limited use.” In limited use areas, vehicle travel is limited to approved/signed routes of travel and no cross-country vehicle travel is allowed. Table 3.14-1 describes the recreation areas in the vicinity of the project site.

**Table 3.14-1
Open Space and Recreation Areas in the Vicinity of the Project Area**

Open Space/ Recreation Area	Jurisdiction/ Administration	Approximate Distance from the Project Site	Approximate Acreage	Allowed Uses
Yuha Desert Recreation Lands	Limited Area and ACEC/BLM	The transmission line corridor site is located within the boundaries of this designation.	+175,000	OHV, camping
Plaster City OHV Open Area	Open Area/BLM	0.5 miles north of project site	41,000	OHV, camping
Superstition Mountain	Open Area/BLM	10 miles north of project site	13,000	OHV, camping
Anza-Borrego Desert State Park	CSP	12.2 miles northwest of site	608,335	Camping, hiking, natural exhibits
Lark Canyon OHV Area and Campground	Limited Use Area/BLM	28 miles west of project site	N/A	OHV, camping
Ocotillo Wells State Vehicular Recreation Area	CSP	30 miles northwest of project site	68,623	OHV, camping
Heber Dunes State Recreation Area	CSP	14.6 miles southeast of project site	557	OHV, camping
East Mesa	Limited Use Area/BLM	37 miles northeast of project site	19,190	OHV, camping
Imperial Sand Dunes Recreation Area	Open Area/BLM	38 miles east of project site	214,930	OHV, camping

3.14.3 Environmental Effects for the Proposed Action

3.14.3.1 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.

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 and 3.10 Cultural Resources.

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.

3.14.3.2 CEQA Significance Determination

RE-1 Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas

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 less than significant.

RE-2 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

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 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.

RE-3 Diminish the enjoyment of existing recreational opportunities

As previously discussed above, the Proposed Action 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.

RE-4 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

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.

RE-5 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

As previously discussed, the Proposed Action 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. Therefore, no significant recreation impact under CEQA is identified with the construction of the substation facility site on private land in Imperial County.

3.14.4 Environmental Effects for Route Alternative 1

3.14.4.1 Direct and Indirect Effects

As described in Section 2.3, 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, Route Alternative 1 would not increase the use of an existing recreational facility and does not include the construction of a recreational facility.

3.14.4.2 CEQA Significance Determination

RE-1 Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas

Route Alternative 1 would have a similar alignment as the Proposed Action's transmission line corridor. The alignment would be located within an area currently designated by the BLM's CDCA as Utility Corridor "N." As with the Proposed Action, the installation of the transmission line corridor within the designated Utility Corridor "N", would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation, and impacts to recreational uses would be less than significant.

RE-2 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

Similar to the Proposed Action, Route Alternative 1 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 Route Alternative 1 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.

RE-3 Diminish the enjoyment of existing recreational opportunities

As previously discussed above, Route Alternative 1 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.

RE-4 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

The substation facility of Route Alternative 1 does not involve the construction of recreation facilities. Furthermore, Route Alternative 1 would not contain a residential component and thus, 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.

RE-5 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

As previously discussed, Route Alternative 1 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. Therefore, no significant recreation impact under CEQA is identified with the construction of the substation facility site on private land in Imperial County.

3.14.5 Environmental Effects for Route Alternative 2

3.14.5.1 Direct and Indirect Effects

As described in Section 2.4, 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. As such, Route Alternative 2 would not result in direct or indirect adverse effects to recreation.

3.14.5.2 CEQA Significance Determination

RE-1 Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas

Route Alternative 2 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.

RE-2 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

Similar to the Proposed Action, Route Alternative 2 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 Route Alternative 2 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.

RE-3 Diminish the enjoyment of existing recreational opportunities

As previously discussed above, Route Alternative 2 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.

RE-4 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

The substation facility of Route Alternative 2 does not involve the construction of recreation facilities. Furthermore, Route Alternative 2 would not contain a residential component and thus, 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.

RE-5 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

As previously discussed, Route Alternative 2 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. Therefore, no significant recreation impact under CEQA is identified with the construction of the substation facility site on private land in Imperial County.

3.14.6 Environmental Effects for the Reduced Liebert Substation Alternative

3.14.6.1 Direct and Indirect Effects

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. Therefore, the Reduced Liebert Substation Alternative would have similar effects to recreation as the Proposed Action. The Reduced 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. As such, the Reduced Liebert Substation Alternative would not result in direct or indirect adverse effects to recreation.

3.14.6.2 CEQA Significance Determination

RE-1 Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas

The Reduced 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.

RE-2 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

Similar to the Proposed Action, 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 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.

RE-3 Diminish the enjoyment of existing recreational opportunities

As previously discussed above, the Reduced 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.

RE-4 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

The substation facility of 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 and thus, 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.

RE-5 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

As previously discussed, the Reduced 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. Therefore, no significant recreation impact under CEQA is identified with the construction of the substation facility site on private land in Imperial County.

3.14.7 Environmental Effects for the No Liebert Substation Alternative

3.14.7.1 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.

3.14.7.2 CEQA Significance Determination

RE-1 Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas

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.

RE-2 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

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.

RE-3 Diminish the enjoyment of existing recreational opportunities

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.

RE-4 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

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.

RE-5 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

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. Therefore, no significant recreation impact under CEQA is identified.

3.14.8 Environmental Effects for the No Action Alternative

3.14.8.1 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.

3.14.8.2 CEQA Significance Determination

RE-1 Directly or indirectly disrupt recreation activities in established Federal, State, recreation areas and/or wilderness areas

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. For this reason, there would be no impacts on recreation resources in the project area.

RE-2 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

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. For this reason, there would be no impacts on recreation resources in the project area.

RE-3 Diminish the enjoyment of existing recreational opportunities

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. For this reason, there would be no impacts on recreation resources in the project area.

RE-4 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

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. For this reason, there would be no impacts on recreation resources in the project area.

RE-5 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

With the No Action Alternative, there would be no construction of new transmission lines or substation improvements. For this reason, there would be no impacts on recreation resources in the project area.

3.14.9 Mitigation Measures

No mitigation measures are required.

3.14.10 Residual Impacts After Mitigation

The impact to recreation would be less than significant.

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3.15 SPECIAL DESIGNATIONS

This section addresses special designation issues in the vicinity of the proposed IID transmission line project. A discussion of relevant laws, regulations, and plans is provided to describe the regulatory background for analysis of special designation issues in the project area. The affected environment section describes existing conditions in terms of special designations. The impact analysis section describes potential impacts with the management goals of any special designation area from implementation of the Proposed Action, the project alternative transmission line alignments, and the No Action Alternative. A discussion of cumulative impacts on special designations is also provided in Chapter 4.0.

3.15.1 Relevant Laws, Regulations, and Plans

There are no significant thresholds for Special Designations under CEQA; however, according to the BLM's NEPA Handbook, this issue must be analyzed pursuant to NEPA. Therefore, the following analysis fulfills the requirements for NEPA and is not required to meet the requirements of CEQA.

3.15.2 Affected Environment

Methodology

The Proposed Action and alternatives were evaluated for impacts on special designations based on a review of Wilderness Act, Federal Land Policy and Management Act, California Desert Conservation Area Plan, BLM's National Scenic Trails System, and National Wild and Scenic Rivers Act.

Existing Conditions

As previously discussed in Section 3.1 Land Use, the Proposed Action and associated alternatives do not have any of the following special designations: Wilderness Areas; Donated Lands; National Scenic and Historic Trails; National Wild and Scenic Rivers; BLM-designated range allotments or pasture for wildlife or livestock..

No direct or indirect impacts on these special designations would occur. Therefore, they will not be discussed further in this section. The special designation considered in the following analysis is Areas of Critical Environmental Concern (ACECs).

The CDCA designates the Yuha Basin as an ACEC as shown by the cross-hatched pattern in Figure 3.1-1. ACEC management requirements are intended to reduce potential impacts to critical resources. In the Yuha Basin, the critical resources are the flat-tailed horned lizard and prehistoric and historic values. Management requirements applicable to the Yuha Basin include improve signage to control vehicle access to designated routes, increase BLM staff presence, conduct an intense resource inventory, and develop and designate visitor use areas and facilities. The ACEC Management Plan allows for the “traversing of the ACEC by proposed transmission lines and associated facilities if environmental analysis demonstrates that it is environmentally sound to do so.” A map of permitted vehicle travel routes, camping areas, and information on visitor attractions is available on the BLM website (BLM 2009). None of the designated vehicle travel routes, camping areas, or visitor attractions are located within or near the Proposed Action site. The WECO is an amendment to the CDCA Plan which establishes or revises off-road vehicle designations of areas and trails pertaining to public lands addressed by the CDCA Plan in the Western Colorado Desert portion of Imperial County. The plan balances OHV recreation with protection of natural resources within areas of Imperial County. The transmission line corridor site has no open routes designation.

Flat Tailed Horn Lizard Yuha Desert Management Area

The Yuha Basin ACEC includes the Yuha Desert Management Area, which is specifically designated by BLM for the FTHL as outlined in the Flat-Tailed Horned Lizard Rangeland Management Strategy to provide guidance for the conservation and management of sufficient habitat to maintain the existing populations of FTHL in five MAs and one research area.

3.15.3 Environmental Effects for the Proposed Action

As discussed in Section 3.5 Biological Resources, the BLM manages all land uses within the Yuha Basin ACEC in order to minimize impact to this sensitive area. The Proposed Action is an allowable use under the CDCA, as the proposed ROW falls within the CDCA designated Utility Corridor “N”. Any potential impacts to biological resources are in conformance with the CDCA and maintain the integrity and intent of the Conservation Plan. Therefore, the Proposed Action would not conflict, directly or indirectly, with the management goals of any special designation area.

3.15.4 Environmental Effects for Route Alternative 1

Similar to the Proposed Action, Route Alternative 1 would not conflict, directly or indirectly, with the management goals of any special designation area. As previously discussed, Route Alternative 1 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 and maintain the integrity and intent of the Conservation Plan.

3.15.5 Environmental Effects for Route Alternative 2

Similar to the Proposed Action, Route Alternative 2 would not conflict, directly or indirectly, with the management goals of any special designation area. As previously discussed, Route Alternative 1 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.

3.15.6 Environmental Effects for the Reduced Liebert Substation Alternative

Similar to the Proposed Action, the Reduced Liebert Substation Alternative would not conflict, directly or indirectly, with the management goals of any special designation area. As previously discussed, the Reduced 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.

3.15.7 Environmental Effects for the No Liebert Substation Alternative

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.

3.15.8 Environmental Effects for 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 special designations would result.

3.15.9 Mitigation Measures

No mitigation measures are required.

3.15.10 Residual Impacts After Mitigation

The impact to special designations would be less than significant.