

Executive Summary

Introduction

On January 16, 2007, Southern California Edison Company (SCE) filed Application No. 07-01-031 with the California Public Utilities Commission (CPUC) for a Permit to Construct the Valley-Ivyglen Subtransmission line. On April 30, 2007 SCE filed Application No. 07-04-028 for a Permit to Construct the Fogarty Substation project. By ruling dated June 6, 2007, Applications No. 07-01-031 and 07-04-028 were consolidated. The CPUC is the lead agency responsible for the preparation of this Draft Environmental Impact Report (DEIR) for the Valley-Ivyglen 115 kV Subtransmission Line and Fogarty Substation Project (the Project), a 25-mile 115 kV subtransmission line to connect SCE's existing Valley and Ivyglen Substations, install a new telecommunications line alongside the subtransmission line, construct the new Fogarty Substation, and make improvements to the Valley and Ivyglen Substations in southwestern Riverside County (See Figure A-1 in Introduction).

The Project would enable SCE (the Applicant) to build necessary electrical facilities to maintain safe and reliable service for their customers and to meet the forecasted demand for electricity in the Valley-Ivyglen and Fogarty Electrical Needs Areas. Under the Federal Energy Regulatory Commission (FERC), North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC), and CPUC rules, guidelines, and regulations, electrical transmission systems must have sufficient capacity to maintain safe and reliable service to customers. System safety and reliability must be maintained under normal conditions, when all facilities are in service, as well as under abnormal conditions. Abnormal conditions result from equipment or line failures, maintenance outages, or emergency outages that cannot be predicted or controlled.

This Executive Summary includes the required contents set forth by the California Environmental Quality Act (CEQA) Statutes and Guidelines, identifies the purpose of the Draft EIR, provides an overview of the Project and alternatives, identifies the Environmentally Superior Alternative, and summarizes the potential impacts and mitigation measures associated with the proposed project.

Environmentally Superior Alternative: Alternative 5

An EIR must identify the environmentally superior alternative to the Project. Alternative 1, the No Project Alternative, would be environmentally superior to the Project on the basis of the minimization or avoidance of physical environmental impacts. Section 15126.6(e)(2) of the State CEQA Guidelines states that if the no project alternative is found to be environmentally superior, "the EIR shall also identify an environmentally superior alternative among the other alternatives."

In terms of effects on the environment, the environmentally superior alternative is Alternative 5 as it would avoid a significant and unavoidable (Class I) impact to mineral resources by avoiding the Pacific Clay mining facility and meet all of the Project's objectives. However, this alternative would still result in significant and unavoidable (Class I) impacts to air quality, land use, and visual.

Project Summary

The Project would primarily consist of the construction, operation, and maintenance of a new 25 mile 115 kV subtransmission line to connect the existing Valley and Ivyglen Substations and the construction of the new Fogarty Substation to provide supplementary electrical services to the City of Lake Elsinore area.

In addition to the construction of the proposed subtransmission line and Fogarty Substation, the Project includes:

- Improvements to the Valley and Ivyglen Substations to accommodate the proposed subtransmission line, including the installation of new 115 kV switching and protective equipment to terminate the proposed subtransmission line at the respective sites
- Tie-ins between the new Fogarty Substation and existing subtransmission and telecommunications lines
- Installation of a new telecommunications line alongside the proposed subtransmission line
- Transfer of distribution facilities
- Stockpiling and/or disposal of old electrical distribution line poles

The Applicant has defined the following objectives to meet the Project's purpose and need:

- Serve projected electrical demand requirements in the Electrical Needs Area beginning in 2009.
- Provide a direct connection between the Applicant's Valley 500/115 kV Substation and the Applicant's Ivyglen 115/12 kV Substation.
- Increase system reliability by locating a second 115 kV subtransmission line within the Electrical Needs Area.
- Improve operational and maintenance flexibility on subtransmission lines without interruption of service.
- Maintain system reliability within the Electrical Needs Area.
- Improve operational flexibility by providing the ability to transfer load between distribution lines and substations within the Electrical Needs Area.
- Utilize the Applicant owned property for location of the project.
- Meet project needs while minimizing environmental impacts.
- Meet project needs in a cost-effective manner.

Project Location

The Project would be located in southwestern Riverside County. The proposed subtransmission line would traverse the City of Perris, the City of Lake Elsinore, and the Glen Ivy/Corona Lake area. The Valley Substation is located at the southwest corner of State Highway 74 East and Menifee Road, approximately 1.25 miles east of the City of Perris. The Ivyglen Substation is located on the south side of Temescal Canyon Road between Maitri Road and I-15.

The proposed Fogarty Substation would be located in the northern portion of the City of Lake Elsinore across from the temporary Dryden Substation. The site is approximately 6.6 acres with the Kings Highway right-of-way (ROW) forming the northern boundary, Hoff Avenue forming the southern boundary, and the Dolbeer Road ROW and Terra Cotta Road forming the eastern and western boundaries, respectively. Figure B.2-1 shows the proposed Fogarty Substation location.

Project Components

The Project’s key components are listed in Table ES-1, followed by a discussion of each element. The four project elements are:

- Valley-Ivyglen 115 kV Subtransmission Line (“proposed subtransmission line”)
- Telecommunications System
- Fogarty Substation
- Valley and Ivyglen Substation Improvements

Table ES-1 Summary of Project Components

Valley-Ivyglen 115kV Subtransmission Line
<ul style="list-style-type: none"> • Construction of a new 115 kV electrical subtransmission line, approximately 25 miles long, connecting the existing Valley and Ivyglen Substations <p>Subtransmission Line Poles</p> <ul style="list-style-type: none"> • Transfer of existing distribution circuits along portions of the proposed subtransmission line to new 115 kV poles • Removal of the previously used, no longer needed poles • Construction of approximately 620 light-duty steel (LDS) poles would be required for construction of the proposed subtransmission line. • Balance poles required for the proposed subtransmission line route would be tubular steel poles (TSPs); pole height would range between 80 and 100 feet in height (above the concrete footing), depending on their specific location. • Bolting of approximately 45 TSPs to a steel-reinforced (rebar) concrete footing, approximately 6 feet in diameter and at least 22 feet deep below the ground surface. <p>Conductors and Insulators</p> <ul style="list-style-type: none"> • Construction of three 954 stranded aluminum conductors (SAC) and a single 4/0 aluminum conductor steel reinforced (ACSR) ground conductor. If needed, 954 ACSR would be used at locations requiring higher tension. Conductors would be installed on 115 kV polymer insulator assemblies. <p>Roads</p> <ul style="list-style-type: none"> • The applicant estimates construction of approximately 16 miles of new, unpaved roads
Telecommunications System
<ul style="list-style-type: none"> • Installation of approximately 25 miles of fiber optic cable to provide data communication between the Valley and Ivyglen Substations • Integration of the telecommunications line on the proposed subtransmission line poles, with the exception of approximately 600 feet of telecommunication line that would be installed underground • Telecommunications equipment improvements at the Valley and Ivyglen Substations • Installation of two fiber optic cable segments between the Fogarty Substation and the existing fiber optic cable between the Elsinore and Ivyglen Substations <p>Telecommunications Lines</p> <ul style="list-style-type: none"> • Installation of a new telecommunications line connecting Valley and Ivyglen Substations would follow the same route as the proposed subtransmission line except for underground entrances into the Valley and Ivyglen Substations. • Installation of an optical fiber cable would be attached to new poles along the proposed subtransmission line route. • Installation of one telecommunications line segment exiting the Valley Substation for approximately 300 feet from the substation fence to a riser pole (Segment E-1) • Installation of one telecommunications line segment approximately 300 feet along Temescal Canyon Road into the Ivyglen Substation (Segment W-10) • Installation of two fiber optic cable segments between the Fogarty Substation and the existing fiber optic cable between Elsinore and Ivyglen Substations. • Installation of a total of approximately 1,200 feet of underground fiber optic cable • Installation of all new fiber optic cable in new underground conduits. • Telecommunications System Improvements • Installation of two 24-strand fiber optic cable segments between the Fogarty Substation and the existing fiber optic cable between Elsinore

Table ES-1 Summary of Project Components

<p>and Ivyglen Substations.</p> <ul style="list-style-type: none"> • Installation of new telecommunications equipment • Installation of an equipment rack in the Fogarty Substation Mechanical-Electrical Equipment Room (MEER) would hold telecommunications equipment for the substation.
<p>Fogarty Substation</p> <ul style="list-style-type: none"> • Construction of a new 115/12 kV substation. The Fogarty Substation would be an unattended, automated, low-profile, 56 mega volt-ampere (MVA) 115/12 kV substation • Installation of three tubular steel poles (TSPs) to support two new 115 kV subtransmission line segments approximately 200 feet each, connecting the Valley-Elsinore-Ivyglen 115 kV subtransmission line to the Fogarty Substation • Construction of six underground 12 kV distribution circuits • Construction of two 115 kV, 2000 Ampere (continuous), 40 kilo-Ampere (short circuit) rated circuit breakers on concrete foundations <p>Fogarty Substation Equipment</p> <ul style="list-style-type: none"> • Addition of two 115 kV subtransmission lines. • Inclusion of six underground 12 kV distribution circuits (four existing and two new) would be connected from the substation to Terra Cotta Road. • Construction of one prefabricated metal MEER measuring approximately 12 feet high, 36 feet long, and 20 feet wide to house control and relay racks, battery and battery chargers, AC and DC distribution switchboards and telecommunication equipment. <p>Fogarty Substation Lighting</p> <ul style="list-style-type: none"> • Installation of high-pressure sodium maintenance lights to be located in the switchracks, around the transformer banks, and in areas of the substation where maintenance activity may take place. <p>Fogarty Substation Perimeter Features</p> <ul style="list-style-type: none"> • Installation of a perimeter substation security screen, enclosed on four sides by a minimum 8 foot high perimeter wall, consistent with community standards and subject to the Applicant's safety requirements. • Installation of a metal access gate for the security screen which would be approximately 20 feet wide and a minimum of 8 feet high and fitted with a band of at least three strands of barbed wire affixed near the top of the perimeter wall inside the substation for increased security <p>Fogarty Site Access</p> <ul style="list-style-type: none"> • Construction of an improved temporary driveway access at the front of the substation within the ROW of Terra Cotta Road <p>Dryden Substation</p> <ul style="list-style-type: none"> • Decommissioning and demolition of the temporary Dryden substation
<p>Valley Substation Improvements</p> <ul style="list-style-type: none"> • Construction of an A-frame type line dead end structure 30 feet wide by 29 feet high at vacant position in the 115 kV open switchrack area for terminating the proposed subtransmission line • Construction of two 115 kV, 2000 Ampere (continuous), 40 kilo-Ampere (short circuit) rated circuit breakers on concrete foundations and four 115 kV, 2000 Ampere (continuous) rated horizontal mounted, center side break disconnecting switches on steel support structures, for circuit breaker isolation
<p>Ivyglen Substation Improvements</p> <ul style="list-style-type: none"> • Addition of one 115 kV, 2000 Ampere (continuous), 40 kilo-Ampere (short circuit) rated circuit breaker on a concrete foundation • Addition of three 115 kV, 2000 Ampere (continuous) rated horizontal mounted, center side break disconnect switches on steel support structures • Addition of three 115 kV surge arresters mounted on steel pedestal supports subtransmission line and substation equipment protection within a control room

Less-than-Significant Impacts (Including Significant Impacts That Can Be Mitigated, Avoided, or Substantially Lessened)

The EIR addresses all potentially significant environmental impacts identified during the Initial Study/Notice of Preparation and public scoping. After further technical review and evaluation of the environmental and regulatory setting undertaken during preparation of this DEIR, the following environmental impacts were determined to be less than significant with or without mitigation:

- Agricultural resources;
- Biological resources;
- Hazards and public safety;
- Cultural resources;

- Geology, soils, and mineral resources;
- Hydrology and water quality;
- Recreation;
- Noise and vibration;
- Transportation and traffic;
- Public services and utilities; and
- Population and housing.

The EIR found that environmental impacts on these resources would be reduced to less-than-significant levels with the incorporation of mitigation measures. The mitigation measures identified to reduce significant impacts to less than significant levels are discussed in Section D and are summarized at the end of the Executive Summary in Table ES-2.

Unavoidable Significant Adverse Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts, including those that can be reduced through implementation of mitigation measures but nonetheless would still remain significant (i.e., would not be reduced to less than significant levels). Environmental impacts in the following areas would be significant and unavoidable, even with the incorporation of feasible mitigation measures:

- Air quality;
- Land use;
- Mineral resources; and
- Visual resources.

Air Quality

Construction and operation of the Project will generate Nitrogen Oxide (NO_x) and Particulate Matter (PM₁₀) emissions that exceed the South Coast Air Quality Management District (SCAQMD) significance thresholds and would therefore have a significant impact on air quality in the South Coast Air Basin (SCAB). In addition, construction and operation of the Project would generate greenhouse gases (GHG) that exceed baseline emissions in Riverside County. The main contributors to these violations during construction and operation are employee vehicles, bore/drill rigs, cranes, backhoes, crawlers, and circuit breakers. These GHG emissions of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and sulfur hexafluoride (SF₆), will be mitigated through the purchase of carbon offsets, but will have a significant impact. Construction and operational GHG emissions will be mitigated through the purchase of carbon offsets, and will also have a significant impact. Although the violations of NO_x and PM₁₀ could potentially be mitigated, without additional information on the on-road and off-road equipment specifications to be used during construction and operation, quantifiable reduction of these emissions based on SCAQMD guidance is unknown. In addition, even though construction emissions would be short term, the impact to air quality in the SCAB would remain significant (Class I).

Land Use

The proposed subtransmission line traverses through developed and undeveloped areas. The Project would both temporarily and permanently transform the relatively natural condition of some of the project area as it would be visible from eligible State Scenic Highways SR-74 and I-15 and would therefore conflict with one policy in the Land Use Element of the Riverside County General Plan (LU 13.5). This conflict results in a significant land use impact that could only be mitigated by placing the

subtransmission line underground or relocating the line to a location that would not be visible from a from Designated and Eligible State and County Scenic Highway.

Mineral Resources

Segment W-1B of the proposed subtransmission line bisects the Pacific Clay mining facility, which is an active clay mine owned by Castle and Cooke. Construction of the Project would disrupt extraction of the clay deposits because subtransmission line poles would be constructed amidst the active mining operations. The clay deposits beneath and surrounding the poles would be removed from production and result in reduced availability of a known mineral resource. Impacts to mineral resource recovery sites would be significant and unavoidable. These significant and unavoidable impacts (Class I) would result from construction of the Project.

Visual Resources

As with the significant and unavoidable impact to land use in the project area, the Project would both temporarily and permanently transform the relatively natural condition of some of the project area and potentially affect sensitive viewpoints for motorists and residents along eligible State Scenic Highways. In addition, construction impacts would be noticeable to area residents and motorists along the local road system as site clearing, grading, and construction of permanent facilities would damage scenic resources, to include trees, rock outcroppings, and historic buildings within a State Scenic Highway. Although construction activities such as grading and temporary storage of construction materials are temporary, they will disrupt the unity and intactness of views and would detract from natural vivid features along the proposed subtransmission line route. The contrast of permanent development in the project area would be most notable from the intersection of Highway 74 and I-15 to the Ivyglen Substation as well as the Fogarty Substation site. In these segments, the proposed subtransmission line and Fogarty Substation would punctuate and overpower visual intactness, detract from any natural vividness, and lessen the unity of views along State Scenic Highways and ultimately significantly and unavoidably impact visual resources.

Alternatives

The Project alternatives presented below were chosen for analysis based on a screening process that considered the following criteria: meets project objectives, lessens significant impacts, and are reasonable. Alternatives were eliminated from consideration if they failed to meet these criteria. Alternatives that were remote or speculative or the effects of which could not be reasonably predicted, were also eliminated. The Applicant considered several alternatives to reduce impacts on air quality, land use, and visual resources. This section briefly describes the alternatives that were chosen for further consideration. Refer to Figure C.2-2 to locate the proposed route and alternatives.

Alternative 1: No Project

Under Alternative 1, the Project would not be constructed and existing conditions in the Project area would remain unchanged. Significant air quality, land use, mineral resource, and visual resource impacts from the Project would be avoided. However, Alternative 1 would not achieve Project objectives, such as providing safe and reliable service to the customers in the Fogarty and Valley-Ivyglen Electrical Needs Areas and complying with voltage levels mandated by the California Public Utilities Commission (CPUC).

Alternative 2: Construct the subtransmission line along the existing Valley-Serrano 500 kV ROW

Under Alternative 2, a new 115 kV subtransmission line would be constructed that traverses between the Valley 500/115 kV and Ivyglen 115/12 kV Substations along the existing Valley-Serrano 500 kV ROW to an area north of the Ivyglen Substation to eventually be connected to the Ivyglen Substation by one of various routes. This corridor would begin at the Valley Substation and run west toward Eligible Scenic Highway SR-74 (Figure C.2-1). The corridor would then proceed west from SR-74 along the existing Valley-Serrano 500 kV ROW to an area north of the Ivyglen Substation. From this 500 kV ROW, several alternative routes were considered to connect the proposed line to the Ivyglen Substation.

A network of new access roads would be needed to construct Alternative 2 through mountainous terrain along the existing 500 kV ROW as this ROW is not regularly maintained. Road construction would require extensive earthmoving activities, including rock blasting, grading on steep slopes, and filling of natural drainages. These construction activities would present potential adverse environmental impacts to biological resources, air quality, water quality, erosion, and noise. Due to its geographical remoteness, Alternative 2 would not serve the project objective of being able to be utilized for connections to potential future electrical facilities in the Valley South System; however, it would meet the project objective of using the Applicant's existing property to connect the Applicant's Valley 500/115 kV and Ivyglen 115/12 kV Substations.

Alternative 3: Construct the central portion of the subtransmission line along segments C-2, C-4, and C-6

Alternative 3 would connect Segments C-2, C-4, and C-6 to segment E-1 in the east and W-1 in the west. Combined, these segments would make up a complete route between the Applicant's Valley 500/115 kV and Ivyglen 115/12 kV Substations and still maintain a route that would serve the Valley-Ivyglen and Fogarty Electrical Needs Areas. Alternative 3 would have comparable environmental impacts to the region, however, would present more access and maintenance challenges for the Applicant.

The exact path of Alternative 3 would start at the end of segment E-1 and proceed southwest along the existing 33 kV and 12 kV lines that are located northwest of Eligible Scenic Highway SR-74 for approximately 5.8 miles, turning west until reaching El Toro Road. Alternative 3 would then follow the same route as the Project along segments C-4 and C-6 along El Toro Road, across Eligible Scenic Highway I-15, and along Nichols Road to connect with segment W-1. As discussed below, Alternative 3 would have similar impacts to air quality as the Project; however, as Segment C-2 does not travel as closely to Eligible Scenic Highway SR-74, significant impacts to land use and visual resources would be reduced when compared with the Project but remain significant and unavoidable (Class I).

Alternative 4: Construct the Fogarty Substation west of Terra Cotta Rd

Alternative 4 occupies a 5.7-acre site located directly west of Terra Cotta Road on the side of the street opposite from the proposed Fogarty Substation Site (Figure A.1-2). Site Alternative 4 is roughly rectangular in shape and the narrow end of the parcel that fronts along Terra Cotta Road contains terrain that slopes gently toward the street at a gradient of approximately 6.6%.

The northeastern corner area of the Alternative 4 site contains the temporary Dryden Substation and a gravel-surfaced parking area buffer that abuts southern and western sides of the substation. Terra Cotta Road south of the substation and graveled parking area formerly contained a single family residence of

which only concrete foundation remnants and front-door stairs remain. Access to site Alternative 4 is the same as the Project.

Alternative 5: Construct the subtransmission line along segments C-8, C-9, W-3, W-13 and W-14 (Warm Springs-Pacific Clay Alternative)

Alternative 5 consists of two geographically separated portions of the subtransmission route—the Warm Springs and Pacific Clay portions. The Warm Springs portion of Alternative 5 would connect Segments C-1 in the Central Region to segment W-1A in the Western Region. This comprises segments C-8A, C-8B, C-8C, C-8D, C-8E and C-9A, C-9B, C-9C, C-9D, C-9E (Figure C.2-6). The Pacific Clay portion of Alternative 5 would connect W-1A to W-4 in the Western Region and comprises segments W-13A, W-13B, W-13C, W-13D, W-14A, W-14B, and W-3B (Figure C.2-7). Combined, these segments make up a complete route between the Applicant's Valley 500/115 kV and Ivyglen 115/12 kV Substations and still maintain a route that would serve the Valley-Ivyglen and Fogarty Electrical Needs Areas. Alternative 5 would have comparable environmental impacts to the region, however, additional segments would cross over or extend along Highway I-15 and SR-74, both of which are Eligible Scenic Highways, although they are not officially designated at this time. Class I Land Use and Visual impacts would remain with Alternative 5, however Class I impacts to mineral resources would be avoided.

The Warm Springs portion of Alternative 5 would continue in a southwest direction from C-1 and cross Highway I-15 where it would proceed northwest to W-1A. The following text describes the individual segments that comprise the Warm Springs portion of Alternative 5.

Segment C-8A extends southwest underground along SR-74 from Conard Avenue and turns northeast and traverses along Dexter Avenue. This segment crosses I-15 overhead and continues along Riverside Drive to Collier Avenue. Segment C-8B extends northwest along Collier Avenue on the existing Valley-Ivyglen 115kv line for 1.2 miles and then turns southwest to Baker Street. The 1.2-mile segment along Collier Avenue would be rebuilt on new LDS carrying the new Valley-Ivyglen circuit. C-8C and C-8D segments require the relocation of the existing Valley-Elsinore-Ivyglen line from Collier Avenue to Baker Street. The C-8D segment proceeds southwest on Riverside Drive from Collier Avenue then turns northwest onto Baker Street. Segment C-8C proceeds northwest along Baker Street for approximately 1.2 miles, until intersecting the existing Valley-Elsinore-Ivyglen line near Nichols Road. Segment C-8E proceeds underground along SR-74 from Conard Avenue to Collier Avenue. The underground segment then turns northeast and follows Collier Avenue, parallel to the existing Valley-Elsinore-Ivyglen 115 kV line, extending to Riverside Drive. It then rises up to overhead and connects to segment C-8B.

Segment C-9A proceeds southeast along Conard Avenue, from SR-74 to 3rd Street, then turns southwest and extends along 3rd Street to Cambern Avenue. Segment C-9B proceeds along SR-74 from Conard to Cambern Avenue, then turns at Cambern Avenue and extends to 3rd Street. Segment C-9C proceeds along 3rd Street, from Cambern Avenue, crosses over I-15 and extends to Collier Street. Segment C-9D requires the relocation of the existing Valley-Elsinore-Ivyglen line from Collier Avenue to Pasadena Street. This segment would be built along existing lines which proceed along 3rd Street, from Collier Avenue to Pasadena Street, and then a new line would turn northwest, extending along Pasadena Street to Riverside Drive. Segment C-9E proceeds along Collier Avenue, replacing the existing Valley-Elsinore-Ivyglen 115 kV line from 3rd Street to the intersection of Collier Avenue and Riverside Drive.

The Pacific Clay portion of Alternative 5, would utilize the Castle and Cooke proposed trail system and utility corridor and replace the westernmost portion of the proposed segment W-1. This portion of W-1 is redesignated as W-1B. The new alternative route segment W-14 (sub-segments A and B) would replace segment W-1B. The eastern portion of W-1 (now known as W-1A) would remain as previously defined in

the proposed project. As part of this alternative, a portion of the existing Valley-Elsinore-Ivyglen 115 kV line (route segment W-13A) would be relocated eastward to accommodate the new Valley-Ivyglen 115 kV line (route segment W-14A) within the corridor.

A second portion of the existing Valley-Elsinore-Ivyglen 115 kV line (route segment W-13B) would be relocated northward along Lake Street into the new Castle and Cooke trail and utility corridor on the south side of I-15. A portion of alternative route segment W-14A would be co-located within this portion of the trail system and utility corridor. The Pacific Clay Portion Alternative would largely be co-located on existing distribution lines, and not through an undeveloped area. As such, fewer impacts to agricultural, biological or cultural resources; geology and soils; hazards and hazardous materials; mineral resources; population and housing; recreation; transportation and traffic; and public utilities and services would occur than with the proposed Project. Potential air quality and noise impacts would be similar to the route segment proposed in the Project. Impacts to visual resources would be greater for this alternative than for the route segment proposed in the Project as segment W-14B would extend along a longer portion of Highway I-15, an Eligible Scenic Highway. As with the proposed project, these impacts would be significant and unavoidable. It should also be noted that segments W-14A, W-14B, and W-3B would be placed in a designated floodway.

Environmentally Superior Alternative: Alternative 5

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In terms of effects on the environment, the environmentally superior alternative is Alternative 5 as it would avoid a significant and unavoidable (Class I) impact to mineral resources by avoiding the Pacific Clay mining facility and meet all of the Project’s objectives. However, this alternative would still result in significant and unavoidable (Class I) impacts to air quality, land use, and visual.

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
D.2 Land Use			
Impact LAND-1: Physical Division	Less than significant	No mitigation required	Less than significant (Class III)
Impact LAND-2: Applicable Land Use Plan, Policy, or Regulations	Significant	AES-SCE-1 through AES-SCE-4 (see below)	Significant (Class I)
Impact LAND-3: Habitat Conservation Plan or Natural Community Conservation Plan	Significant	MM BIO-5a (see below)	Less than significant (Class II)
D.3 Visual Resources			
Impact VIS-1: Adverse Effect on a Scenic Vista	Significant along portions of route; Remainder of project less than significant	<p>AES-SCE-1 (Revegetation): Implement a revegetation program that will help restore the visual quality of segments along State Scenic Highways.</p> <p>AES-SCE-2 (Reflection and Contrast): Use only non-specular conductors. Use light duty and tubular steel poles for the proposed subtransmission line that will weather to be non-reflective.</p> <p>AES-SCE-3 (Reflection): Use galvanized electrical poles with a flat finish.</p> <p>AES-SCE-4 (Presence): Locate poles off of ridgelines and site construction and permanent access roads such that they will be screened from view by existing vegetation.</p>	Significant (Class I) & Less than significant (Class III)
Impact VIS-2: Damage to Scenic Resources within a State Scenic Highway	Significant along portions of route and at Fogarty Substation; Less than significant at Valley & Ivyglen Substations		
Impact VIS-3: Degradation to Existing Visual Character	Significant along portions of route and at Fogarty Substation		
Impact VIS-4: New Source of Substantial Light or Glare Affecting Daytime or Nighttime Views	Less than significant		Less than significant (Class III)
D.4 Biological Resources			
Impact BIO-1: Effects on Sensitive Biological Communities and Sensitive Species	Significant	MM BIO-1a (Environmentally Sensitive Areas): The Applicant shall reduce impacts to the habitat of the sensitive species listed in Tables D.4-2 and D.4-3 by engineering the project so that it minimizes its impacts to sensitive species. This can be accomplished by situating permanent project elements (i.e., roads and poles) away from known	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>locations of special status species and communities. However, where this is not feasible, environmentally sensitive areas such as rare plant populations or specific breeding habitat will be identified in the field to minimize the possibility of inadvertent encroachment using the following avoidance and MMs:</p> <ul style="list-style-type: none"> a. Flagging or otherwise marking sensitive plant species will be done by a trained local botanist. Construction crews will avoid direct or indirect impacts to these flagged areas. Construction personnel shall be instructed to avoid intrusion beyond these marked areas. b. Monitoring the known locations of special status plant populations that might be found prior to or during the construction period, using a trained professional botanist. Monitoring while construction is taking place in the vicinity of the special status plant populations and for one year following construction to assess the effectiveness of protection measures. <p>MM BIO-1b (Burrowing owls): If breeding burrowing owls are found during the pre-construction surveys, the burrows shall be flagged and an appropriate construction buffer, as determined by a qualified wildlife biologist, will be established to avoid direct and indirect impacts to active nests. If the appropriate buffer cannot be maintained or if non-breeding burrowing owls are found during the pre-construction surveys, the CDFG will be contacted by the Applicant's biologist to determine relocation protocols and additional mitigation requirements.</p> <p>MM BIO-1c (Noise Control): The Applicant shall avoid impacts to migratory and sensitive bird species protected under federal or state regulations by ensuring that construction or operational noise shall not exceed ambient levels during the nesting period. This shall be done through careful work scheduling and having properly functioning mufflers on construction vehicles to ensure that migratory and nesting</p>	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>birds are not impacted by construction noise, no vehicles, chain saws, or heavy equipment shall be operated within the exclusion zone of 250 feet until the nesting season is over, or until a qualified wildlife biologist has determined that nesting is finished and the young have fledged. If a certified wildlife biologist determines that any particular construction, operation, or maintenance activities pose a high risk of disturbing an active nest, the biologist will recommend additional, feasible measures to minimize the risk of nest disturbance. If work activities are found to result in harm to nesting birds, destruction of an active nest, or nest abandonment prior to fledging, the biologist will report this to the CDFG and USFWS.</p> <p>MM BIO-1d: (Pre-Construction Nesting Bird Surveys): To avoid the impacts to active nests (with eggs or young) of any protected bird, the Applicant shall implement one of the following:</p> <ol style="list-style-type: none"> a. Conduct all construction activity (including vegetation pruning or removal) during the non-breeding season (generally between August 16 and February 28) for most special status and non-special status migratory birds, and conduct pre-construction surveys in advance of construction if construction is scheduled during the nesting season (roughly February through August). b. If construction activities are scheduled to occur during the breeding season (generally between February or March through August), a qualified wildlife biologist will conduct pre-construction focused nesting surveys prior to any ground disturbing activity, tree trimming or vegetation removal activities. <p>MM BIO-1e (Special Status Plant Species): The limits of populations of sensitive plant species shall be flagged or otherwise marked by a certified botanist to ensure construction crews will avoid direct or indirect impacts to these populations. Construction personnel shall be instructed to avoid intrusion beyond these marked areas.</p>	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>The known locations of special status plant populations within the project footprint found prior to or during the construction period will be monitored using a qualified botanist. Monitoring will occur during ground disturbing construction activity in the vicinity of the special status plant populations to assure the effectiveness of protection measures. If impacts to the known location of the sensitive plant species are unavoidable, a certified botanist will be consulted to determine the best method for preservation of the affected population. After construction is complete, the affected species will be reintroduced to its original location. If the original location is made unsuitable by project construction, the populations will be relocated to the most proximate feasible location as determined by the certified botanist. The Applicant shall show that the reintroduction reaches at least a 1:1 ratio of original preconstruction and postconstruction populations two years after Project completion, and shall submit a post-construction report/technical memo to CPUC verifying the success of the reintroduction.</p> <p>MM BIO-1f (Special Status Terrestrial Species): Preconstruction surveys will be conducted by a certified wildlife biologist for all terrestrial special status species as defined by Table D.4-2. The locations of any sensitive species, and their habitats, shall be marked and avoided during final project design and construction. A qualified wildlife biologist will be on-site to conduct on-site biological monitoring for sensitive wildlife species including, but not limited to, those found in Table D.4-2.</p>	
Impact BIO-2: Wetlands and Riparian Habitats	Significant	<p>MM BIO-2a (Wetlands Avoidance and Restoration): A wetland delineation per the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (USACE 1987) will be conducted prior to construction if it is determined that there is any likelihood of a potential impact to a wetland. The delineation will use a three-parameter approach that includes an examination of vegetation, soils, and hydrology to determine the presence of wetlands. A wetland report will be prepared and submitted to the USACE for verification.</p>	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>Through this process, final calculations of jurisdictional wetland areas present in the project study area will be obtained for project permitting. Wetlands and aquatic resources such as intermittent and perennial creeks, drainages, and swales that occur within the ROW will be denoted as environmentally sensitive areas and will be avoided during construction to the degree practicable. Many of the larger creeks flow through culverts beneath existing roads and they will not be directly impacted. However, smaller creeks and resources may flow across the ROW and could be affected. Where avoidance of riparian and wetland areas is not feasible and work is required within jurisdictional wetlands, drainages, and other wetland habitats, the Applicant would obtain and comply with all necessary USACE and CDFG permits under the CWA and CDFG 1600 regulations. Adherence to any applicable regulatory requirements would reduce any potential impacts to less than significant levels.</p> <p>Additionally, potential hydrologic impacts would be minimized through the use of Best Management Practices (BMPs) such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures will be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.</p> <p>MM BIO-2b (Erosion Control): The BMPs included in the Storm Water Pollution Prevention Plan (SWPPP) will be implemented during construction to minimize impacts associated with erosion. BMPs will include the installation of sediment and erosion control structures to protect biological resources, including streams, as well as roadways and adjacent properties. Watering for dust control during construction will also be employed.</p> <p>MM BIO-2c (Hydrologic Impacts): Potential hydrologic impacts would be minimized through the use of BMPs such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures will be designed to minimize ponding,</p>	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.</p> <p>MM BIO-2d (Loss of Habitat): Mortality of individual species associated with wetland and riparian habitats will be reduced to less than significant by adoption of mitigations measure pertaining to sensitive species.</p>	
Impact BIO-3: Migratory Wildlife	Less than significant	No mitigation required	Less than significant (Class III)
Impact BIO-4: Local Policies	Significant	<p>MM BIO-4a (Tree Removal Permitting): Obtain a Tree Removal Permit from the County of Riverside. The County of Riverside, Roadside Tree Ordinance 12.08 requires permits for tree removal within county highway ROWs (County of Riverside 2004). In addition, the County of Riverside requires that any future development in an identified sensitive vegetation area (including oak woodlands) must be evaluated individually and cumulatively for potential impact on vegetation (County of Riverside 1993). Mitigation will be coordinated, as required, with the appropriate public and resource agencies once tree removal permits or approvals for lost significant trees are obtained. Mitigation for lost trees may not be implemented within the ROW due to fire safety concerns and instead may be implemented in an alternative agency approved location.</p>	Less than significant (Class II)
Impact BIO-5: Conservation Plans	Significant	<p>MM BIO-5a (Western Riverside County MSHCP Compliance): The Applicant will comply with all regulations and policies outlined in the MSHCP. This will include but is not limited to:</p> <ul style="list-style-type: none"> a. The payment of Local Development Mitigation Fees and other relevant fees as set forth in Section 8.5 of the MSHCP b. Compliance with the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process or equivalent process to ensure application of the criteria and thus satisfaction of the local acquisition obligation 	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> c. Compliance with the policies for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools set forth in Section 6.1.2 of the MSHCP d. Compliance with the policies for the Protection of Narrow Endemic Plant Species set forth in Section 6.1.3 of the MSHCP e. Compliance with survey requirements as set forth in Section 6.3.2 of the MSHCP f. Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP g. Compliance with the BMPs and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP 	
D.5 Cultural Resources			
<p>Impact CUL-1: Adverse Change in the Significance of a Historical Resource</p>	<p>Significant; Less than significant</p>	<p>MM CUL-1a (Avoid Environmentally Sensitive Areas): Known historical resources located within the project APE shall be designated as Environmentally Sensitive Areas (ESAs), and will include a buffer of 100 feet beyond historical site boundaries. Site information is confidential; therefore, site boundaries will be delineated in the Cultural Resources Treatment Plan (CRTP). All personnel involved in construction activities shall be instructed on how to avoid an ESA prior to construction operations. Avoidance of ESAs shall be achieved by shifting the proposed subtransmission line route, by spanning the site, by not placing any new utility poles or access roads, or redesigning the footprint of a facility. Design of access roads and pole locations shall result in complete avoidance of historical resources. A qualified archaeologist and/or architectural historian shall be on site to monitor all ground-disturbing work within 1,000 feet of an ESA.</p> <p>MM CUL-1b (Cultural Resources Treatment Plan): There are resources within the project area whose eligibility for the CRHR is undetermined due to lack of evidence. These resources may be found to be considered significant archaeological or cultural resources pending further investigation. If avoidance of these resources is NOT feasible, each site identified in the sections above as having an undetermined eligibility status must be tested and evaluated. Testing</p>	<p>Less than significant (Class II & III)</p>

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>and evaluation may consist of surface collection and mapping, limited subsurface excavations, and the appropriate analyses and research necessary to characterize the artifacts and deposit from which they originated, archival research, and photo-documentation. Upon completion of the test level investigations for sites determined to be unique archaeological sites or historical resources as set forth in CEQA Guidelines Section 15064.5 the archaeologist shall submit its recommendations to the CPUC in a "Cultural Resources Treatment Plan" (CRTP) on the measures that shall be implemented to protect the sites. Appropriate measures for unique archaeological resources or historical resources could include preservation in place through planning construction to avoid the resources, capping cultural resources deposits with a layer of chemically stable soil, or incorporation of sites into parks, greenspace, or other open space. In the event that preservation of the resources is not feasible the CRTP should detail an appropriate data recovery plan which makes provisions for adequately recovering the scientifically consequential information from and about the resource in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings (1995). Such studies shall be deposited with the California Historical Resources Regional Information Center. Any excavations of archaeological resources shall be monitored by a Native American Representative. A report detailing the results of all evaluation and data recovery activities shall be completed and submitted to the CPUC as well as the Eastern Information Center, and other agencies, as appropriate. Any artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution or approved curation facility where they would be afforded long term preservation to allow future scientific study.</p> <p>The CRTP shall address procedures for working in ESAs or other areas deemed sensitive for encountering cultural resources. The CRTP shall include detailed procedures for encountering cultural resource sites or isolates; encountering human remains; requirements</p>	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>for contacting personnel qualified to assess a discovery and its treatment; collections and curation requirements; and compliance with applicable laws and regulations. Avoidance of known cultural resources is central to the current project objectives; however, the CRTP shall define protocol to reduce impacts to undiscovered cultural resources that may be encountered during construction to a Class II impact.</p> <p>MM CUL-1c (Construction Monitoring): Prior to any ground disturbing activities taking place in conjunction with this project the applicant shall provide evidence that an archaeologist has been retained by the landowner or subsequent project applicant and that the consultant(s) will be present during all grading and other significant ground disturbing activities. These consultants shall be selected from the roll of qualified archaeologists maintained by the County of Riverside. Should any cultural resources be discovered, the monitor is authorized to stop all grading in the immediate area of the discovery, and shall make recommendations to the CPUC on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. If the resources are determined to be "historic resources" as defined in Section 15064.5, mitigation measures shall be identified by the monitor and recommended to the CPUC. Appropriate treatment for such previously undiscovered resources should be in accordance with the CRTP implemented in MM CUL-1b. No further grading shall occur in the area of the discovery until the CPUC approves the measures to protect these resources. Any archaeological artifacts recovered as a result of monitoring and mitigation shall be submitted to an approved curation facility for storage.</p> <p>All construction activities in ESAs, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that may hold buried cultural</p>	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>resources, full-time cultural resources monitoring should be implemented during all phases of ground disturbing work in these areas (Figure D.5-1). A cultural resource monitor must meet the Secretary of the Interior Standards Qualifications as a professional archaeologist, and must be on the County of Riverside Cultural Resources Consultants list. The archaeological monitor(s) must also be familiar with the project area and therefore capable of anticipating the types of cultural resources that may be encountered.</p> <p>MM CUL-1d (Human Remains): In the event of the accidental discovery or recognition of human remains during project construction, the following steps shall be taken: There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Riverside County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the Most Likely Descendent (MLD) from the deceased. The MLD may make recommendations to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and associated grave goods as provided in PRC Section 5097.98.</p>	
Impact CUL-2: Adverse Change in the Significance of an Archaeological Resource	Significant except at Valley & Ivyglen Substations	MM CUL-1a through MM CUL-1d (see above)	Less than significant (Class II)
Impact CUL-3: Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature	Significant	<p>MM CUL-1b and MM Cul-1d (see above)</p> <p>MM CUL-3a (Paleontological Monitoring): A qualified paleontologist shall be present during ground-disturbing construction activities in areas of paleontological sensitivity. The Applicant shall prepare a map showing the areas underlain by the Silverado Formation in Temescal</p>	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Canyon and under the Fogarty Station site. These shall be considered areas of paleontological sensitivity. The paleontological monitor shall have regional experience identifying paleontological resources, be an approved paleontologist listed with Riverside County, and shall work in accordance with MM CUL-1b.	
Impact CUL-4: Disturb Human Remains, Including Those Interred Outside of Formal Cemeteries	Significant	MM CUL-1a through MM CUL-1c (see above)	Less than significant (Class II)
D.6 Geology, Soils, and Mineral Resources			
Impact GEO-1: Adverse Effects to People and Structures Due to Seismic Activity	Significant	<p>MM GEO-1a: All construction personnel shall adhere to the Applicant's worker safety guidelines and policies to avoid additional adverse effects to health and safety in the event of an earthquake during construction. A site-specific safety plan with seismic activity highlighted as a potential hazard during all onsite construction activity shall be submitted to the California Public Utilities Commission (CPUC) for review and approval at least 30 days before construction.</p> <p>MM GEO-1b: The Applicant shall perform design-level geotechnical investigations including site-specific seismic analyses to evaluate the peak ground acceleration for design of project components. The design guidelines determined in SCE-GEO-2 shall be implemented during construction of all project components. Compliance with this measure shall be documented to the CPUC at least 30 days before construction by submittal of reports describing potential peak ground accelerations expected for design level earthquake and a description of how the design will accommodate this anticipated motion.</p> <p>MM GEO-1c: For overhead transmission lines, site-specific geotechnical investigations will be performed at proposed pole locations to evaluate the potential for fault surface rupture. Where significant potential for fault surface rupture exists, pole locations will be adjusted as possible. Incorporation of standard engineering practices in accordance with the UBC, CBC, and Alquist-Priolo Act as part of the project will ensure that people or structures are not exposed to fault rupture hazards such as strong seismic ground</p>	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		shaking, seismic-related ground failure such as liquefaction, and landslides. MM GEO-1d: Project design and construction shall be in conformance with current best standards for earthquake resistant construction in accordance with the CBC (Seismic Zone 4). In addition, project design shall follow the recommendations of the site-specific geotechnical investigation report in MM GEO-1b and Applicant Proposed Measure SCE-GEO-2.	
Impact GEO-2: Soil Erosion	Significant	MM GEO-2a: An erosion and sedimentation control plan shall be incorporated into the SWPPP for project construction activities to minimize onsite soil erosion and offsite sedimentation. The plan shall include site maps, identification of construction activities, and measures for providing erosion and sediment control. The erosion and sedimentation control plan as part of the SWPPP shall be submitted to the CPUC for review and approval at least 30 days before construction.	Less than significant (Class II)
Impact GEO-3: Soil Stability	Significant	MM GEO-3a: The Applicant shall perform design-level geotechnical investigations to assess the potential for geological hazards to include liquefaction, unstable slopes, landslides, earth flows, debris flows, and expansive soils to affect the approved project structures. Where hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the final project design. Appropriate measures could include: <ul style="list-style-type: none"> • Ground improvement of liquefiable zones • Incorporation of slack in underground portions of the telecommunications system • Positioning of project structures away from steep hillsides and steep drainages • Excavation of potentially expansive soils during construction and replacement with tested and engineered backfill 	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Redirection of surface water and draining away from expansive foundation soils <p>The Applicant shall submit a report of the geotechnical survey and proposed measures to reduce the potential impacts of geological hazards to the CPUC for review and approval at least 30 days before construction.</p>	
Impact GEO-4: Expansive Soils	Significant at Fogarty Substation only; Remainder of project less than significant	MM GEO-3a (see above)	Less than significant (Class II & III)
Impact GEO-5: Wastewater Disposal	Less than significant	No mitigation required.	Less than significant (Class III)
Impact GEO-6: Availability of a Known Valuable Mineral Resource	Less than significant	No mitigation required.	Less than significant (Class III)
Impact GEO-7: Mineral Resource Recovery Sites	Significant for Segment W-1B of subtransmission line route and telecommunications system only; remainder of project less than significant	No mitigation possible.	Significant (Class I)
D.7 Hydrology and Water Quality			
Impact HYD-1: Water Quality Standards and Waste Discharge Requirements	Significant	MM HYD-1a: All plans identified in HYDRO-SCE-1 and 3 shall be reviewed and approved by the Santa Ana RWQCB for compliance with the Santa Ana Water Quality Control Plan prior to initiation of construction. Verification of approval shall be provided to the California Public Utilities Commission (CPUC) at least 30 days before construction.	Less than significant (Class II)
Impact HYD-2: Groundwater Supplies and Recharge	Less than significant	No mitigation required	Less than significant (Class III)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact HYD-3: Drainage Patterns, Erosion, and Siltation	Significant; Less than significant	<p>HYDRO-SCE-1: The SWPPP would be submitted to Riverside County along with grading permit applications. Implementation of the SWPPP would help stabilize graded areas and waterways, and reduce erosion and sedimentation. The plan would designate BMPs that would be adhered to during construction activities. Erosion-minimizing efforts such as straw wattles, water bars, covers, silt fences, and sensitive area access restrictions (for example, flagging) would be installed before clearing and grading began. Mulching, seeding, or other suitable stabilization measures would be used to protect exposed areas during construction activities. During construction activities, measures would be in place to ensure that contaminants are not discharged from construction sites. The SWPPP would define areas where hazardous materials would be stored, where trash would be in-place, where rolling equipment would be parked, fueled and serviced, and where construction materials such as reinforcing bars and structural steel members would be stored. Erosion control during grading of the construction sites and during subsequent construction would be in-place and monitored as specified by the SWPPP. A silting basin(s) would be established, as necessary, to capture silt and other materials, which might otherwise be carried from the site by rainwater surface runoff.</p> <p>HYDRO-SCE-2: An environmental training program would be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures and SWPPP measures, to all field personnel. A monitoring program would be implemented to ensure that the plans are followed by all personnel throughout the construction period.</p> <p>HYDRO-SCE-3: The SWPPP would include procedures for quick and safe cleanup of accidental spills during construction. This plan would be submitted to Riverside County with the grading permit application. The SWPPP would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction</p>	Less than significant (Class II & III)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>and would include an emergency response program to ensure quick and safe cleanup of accidental spills. The plan would identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, would be permitted.</p> <p>HYDRO-SCE-4: Dewatering operations would be performed if groundwater is encountered while excavating or constructing the proposed subtransmission line, telecommunications line, or Fogarty Substation. These operations would include, as applicable, the use of sediment traps and sediment basins in accordance with BMP NS-2 (Dewatering Operations) from the California Storm water Quality Association's (CASQA) California Storm water BMP Handbook.</p>	
Impact HYD-4: Draining Patterns and Flooding	Less than significant	No mitigation required	Less than significant (Class III)
Impact HYD-5: Runoff Water and Storm Water Drainage Systems	Significant	<p>MM HYD-5a: The environmental training and monitoring program identified in HYDRO-SCE-2 shall be reviewed and approved by the Santa Ana RWQCB for compliance with the Santa Ana Water Quality Control Plan prior to initiation of construction. Verification of approval shall be provided to the CPUC at least 30 days before construction.</p> <p>MM HYD-5b: The SWPPP discussed in HYDRO-SCE-1 and 3 shall be reviewed and approved by the Santa Ana RWQCB for compliance with the Santa Ana Water Quality Control Plan prior to initiation of construction. Verification of approval shall be provided to the CPUC at least 30 days before construction.</p>	Less than significant (Class II)
Impact HYD-6: Water Quality	Less than significant	No mitigation required	Less than significant (Class III)
Impact HYD-7: Flood Hazard Zones	Significant	MM HYD-7a: Aboveground project features such as the TSPs, poles, underground conduit, and substation shall be placed outside the flow path of watercourses unless an engineering analysis, reviewed by the CPUC, demonstrates that watercourse avoidance is not practicable, and that appropriate flood avoidance measures, such as raising foundations, have been taken to identify and prevent potential flooding	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		and erosion hazards. The Applicant shall provide documentation to the CPUC at least 30 days before the start of the construction regarding which structures would be in flow paths and what protective measures, such as design specifications, are proposed. MM HYD-7b: Ensure all National Flood Insurance Program building requirements are followed.	
Impact HYD-8: Structures that Impede or Redirect Flood Flows	Less than significant	No mitigation required	Less than significant (Class III)
Impact HYD-9: Flooding as a Result of Failure of a Levee or Dam	Significant at line segments E-1, C-6, W-3, and W-6 and the Valley Substation; Remainder of project less than significant	MM HYD-7a and MM HYD-7b (see above)	Less than significant (Class II & III)
Impact HYD-10: Inundation by Seiche, Tsunami, or Mudflow	Less than significant	No mitigation required	Less than significant (Class III)
D.8 Hazards and Public Safety			
Impact HAZ-1: Environmental Hazards Due to the Use, Transport, or Storage of Hazardous Materials	Less than significant	No mitigation required	Less than significant (Class III)
Impact HAZ-2: Environmental Hazards Due to Release of Hazardous Materials into the Environment	Less than significant; Portions of project significant during construction	MM HAZ-2a: As part of the siting and engineering process for the proposed subtransmission line, the Applicant shall precisely locate all underground natural gas lines in the area. Prior to finalizing the engineering design, the Applicant shall contact the Underground Service Alert of Southern California (DigAlert 2006) to identify the exact locations of gas pipelines within the project area.	Less than significant (Class II & III)
Impact HAZ-3: Hazardous Emissions within a Quarter Mile of a School	Significant	MM HAZ-2a (see above)	Less than significant (Class II)
Impact HAZ-4: Located on Hazardous Materials Site pursuant to	No impact	No mitigation required	No impact

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Government Code Section 65962.5			
Impact HAZ-5: Public or Worker Safety Hazard Due to Proximity to a Public or Public Use Airport	Less than significant	No mitigation required	Less than significant (Class III)
Impact HAZ-6: Public or Worker Safety Hazard Due to Proximity to Private Airstrip	Significant	MM HAZ-6a: The Applicant shall use visibility markers on all portions of the proposed subtransmission line within half a mile in either direction of I-15 where the line crosses I-15 near Nichols Road.	Less than significant (Class II)
Impact HAZ-7: Interference with an Emergency Response Plan or Emergency Evacuation Plan	Less than significant	No mitigation required	Less than significant (Class III)
Impact HAZ-8: Significant Hazards Associated with Wildfires	Less than significant	No mitigation required	Less than significant (Class III)
D.9 Recreation			
Impact REC-1: Neighborhood and Regional Parks	Less than significant	No mitigation required	Less than significant (Class III)
Impact REC-2: Construction of Recreational Facilities	Less than significant	No mitigation required	Less than significant (Class III)
D.10 Air			
Impact AIR-1: Net Emission Increase of Criteria Pollutants from Construction Activities	Significant	<p>MM AIR-1a: The following control measures shall be implemented to minimize impacts due to fugitive dust emissions:</p> <ul style="list-style-type: none"> • Stabilize unpaved roads with water or other stabilizing agents; • Install wheel washers where vehicles enter and exit construction sites onto paved roads or wash off trucks and equipment leaving sites; • Sweep streets at the end of the day if visible amounts of soil are carried onto adjacent public paved roads. Water sweepers with reclaimed water are recommended; 	Significant even with mitigation (Class I)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Install wind breaks at construction areas if activities cause persistent visible PM emissions beyond the work area; • Suspend excavation, trenching, grading, or other earthmoving activities if winds exceed 25 mph; and • Use all required best available control measures as outlined in Table 1 of SCAQMD Rule 403. <p>MM AIR-1b: All construction equipment greater than 50 hp shall meet the cleanest off-road emission standard available but, at minimum, meet Tier 3 emission standards and be equipped with Level 2 or 3 CARB-verified diesel emission control technology.</p> <p>MM AIR-1c: An equipment emission reduction plan shall be prepared for submission to the CPUC for review and approval at least 60 days prior to construction. The plan shall be incorporated into all contracts and contract specifications for construction work. The plan shall specify all project emission reduction measures and required mitigation measures related to construction equipment emission standards/controls as contractually required. The plan shall outline additional measures, as contractually required, to reduce or eliminate potential impacts associated with construction-related emissions of criteria air pollutants and toxic air contaminants. At minimum, the plan shall include the following additional measures:</p> <ul style="list-style-type: none"> • As feasible, reduce emissions of PM and other pollutants by using alternative clean fuel technology such as electric, hydrogen fuel cell, propane, or compressed natural gas-powered equipment with oxidation catalysts instead of gasoline- or diesel-powered engines. • Ensure that all construction equipment is properly tuned and maintained and shut off when not in direct use. • Prohibit engine tampering to increase horsepower. 	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Locate engines, motors, and equipment as far as possible from residential areas and sensitive receptors, such as schools, daycare centers, and hospitals. • Provide carpool shuttles and vans to transport construction workers to and from construction sites to minimize private vehicle use. • Minimize construction-related transport of workers and equipment including trucks. • Require that on-road vehicles be less than 10 years old. <p>MM AIR-1d: The Applicant shall designate a Construction Relations Officer to ensure the enforceability and efficacy of construction-related mitigation measures. Each construction site shall include clearly visible signs with a phone number for the public to contact the Construction Relations Officer. The Construction Relations Officer shall be readily available to answer questions or field complaints regarding the Project.</p> <p>MM AIR-1e: Prior to commencing construction, all personnel working on the Project shall be trained to minimize emissions and other air quality impacts during construction. Training would include procedures for:</p> <ul style="list-style-type: none"> • Stabilizing disturbed areas, including storage piles; • Controlling dust emissions during land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities; • Transporting materials to minimize visible dust emissions; • Stabilizing on-site unpaved roads and off-site unpaved roads; and • Using transportation best practices such as carpooling, 	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		minimization of vehicle idling, and reduced speed.	
Impact AIR-2: Temporary Ambient Air Impacts Caused by Construction Activities	Significant during construction; Less than significant during operation	MM AIR-1a through MM AIR-1d (see above)	Significant even with mitigation during construction (Class I); Less than significant during operation (Class III)
Impact AIR-3: Net Increase in Criteria Pollutant Emissions During Maintenance and Inspection Activities	Less than significant	No mitigation required	Less than significant (Class III)
Impact AIR-4: Odor from Project Construction, Maintenance, and Inspections	Less than significant	No mitigation required	Less than significant (Class III)
Impact AIR-5: Net Increase in GHG Emissions During Project Construction	Significant	<p>MM AIR-5a: The Applicant shall obtain and hold for the duration of project construction, sufficient carbon credits to fully offset construction-phase GHG emissions ("project carbon offsets"). At minimum, the Applicant shall obtain and hold carbon credits to offset at least 4,229 metric tons of CO₂e emissions for the first year of construction and prorated during the second year as required. Prior to completion of project construction, the Applicant shall prepare a detailed written summary of the project carbon offsets, including offset project type, location, calculation methodology protocol employed, and registration status. In addition, prior to completion of project construction, the Applicant shall provide to the CPUC an independent verification opinion statement(s), from a verification body registered with the California Climate Action Registry, Chicago Climate Exchange, ANSI, or the CARB, for the credits to be applied.</p> <p>Offsets purchased from a third-party or developed by the Applicant must meet at least one of the following requirements:</p>	Significant even with mitigation during construction (Class I)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>1) Offset project is located within California;</p> <p>2) Offset project is located in jurisdictions that hold current, specific agreements with California (such as the Climate Action Reserve), or exist in the context of an ISO-compliant regional trading system like that being developed in the Western Climate Initiative or other regional program; and/or</p> <p>3) Offset project is an internally developed reduction measure following a recognized protocol (such as the Climate Action Reserve, the Voluntary Carbon Standard, or the Chicago Climate Exchange). Some potential offset projects of this type include:</p> <ul style="list-style-type: none"> • Fuel switching in applicant-owned equipment; • Energy efficiency upgrades beyond business as usual; • Implementation of a quantifiable carpooling program above and beyond what is currently in place; and • Sequestration and/or destruction of GHG conducted in accordance with any protocol available at the time of construction from the Climate Action Reserve, the Voluntary Carbon Standard, or the Chicago Climate Exchange. <p>Any project carbon offset either purchased or developed by the Applicant through another entity must either be registered in, or developed in accordance with a protocol for, an established Carbon Reduction/Sequestration Project. Established projects and protocols would include those provided by recognized organizations, such as the Climate Action Reserve, the Voluntary Carbon Standard, or the Chicago Climate Exchange, that can provide a reasonable level of assurance that GHG reductions are real, additional, permanent, and verifiable.</p> <p>Should the Applicant develop a project carbon offset without</p>	

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>registering it with one of the above-referenced registration bodies, the Applicant is required to demonstrate to the CPUC that the offset satisfies the four additionality tests as outlined in the UNFCC Additionality Tool and must obtain an independent evaluation by a qualified third-party confirming that the offset meets additionality testing requirements.</p> <p>With the implementation of MM AIR-5, the impact of the project would be reduced, but it would not be mitigated to a less than significant level and would remain a significant impact (Class I).</p>	
Impact AIR-6: GHG Emissions from Project Operations	Significant	<p>MM AIR-6a: The Applicant shall obtain and hold for the life of the Project sufficient carbon credits to fully offset GHG emissions caused by transmission line operation, maintenance, and inspection activities. Within the first year of project operation, the Applicant shall purchase carbon offsets for at least 34 tonnes of CO₂e. To determine the quantity of carbon reductions that must occur each year after this initial year, the Applicant shall develop a complete GHG inventory annually. The Applicant shall follow established methodologies (such as the California Climate Action Registry or World Resources Institute protocols) to report GHG emissions associated with operation of the Project. All operational emissions, including SF₆ leakage and vehicle travel, will be fully offset using one of the approaches outlined in MM AIR-5a. The Applicant shall report to the CPUC annually on the status of efforts to obtain these offsets and the quantity of GHG emissions offset.</p> <p>With the implementation of MM AIR-6, the impact of the project would be reduced, but it would not be mitigated to a less than significant level and would remain a significant impact (Class I).</p>	Significant even with mitigation during construction (Class I)
D.11 Noise and Vibration			
Impact NOISE-1: Noise Levels that Exceed Standards	Significant along portions of subtransmission line route during construction only; Remainder of project less than	MM NOISE-1a: The Applicant shall stop all construction work within 300 feet of sensitive receptors within Riverside County at 6:00 pm.	Less than significant (Class II & Class III)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
	significant		
Impact NOISE-2: Excessive Ground-Bourne Vibrations or Ground-Bourne Noise Levels	Less than significant	No mitigation required	Less than significant (Class III)
Impact NOISE-3: Permanently Increase Ambient Noise Levels in the Project Vicinity	Less than significant	No mitigation required	Less than significant (Class III)
Impact NOISE-4: Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity	Less than significant	No mitigation required	Less than significant (Class III)
Impact NOISE-5: Impacts to Construction Workers from Airports and Airstrips Noise	Less than significant	No mitigation required	Less than significant (Class III)
Impact NOISE-6: Impacts to Residents in the Vicinity of a Private Airstrip	Less than significant	No mitigation required	Less than significant (Class III)
D.12 Transportation and Traffic			
Impact TRANS-1: Traffic and Level of Service	Less than significant	No mitigation required	Less than significant (Class III)
Impact TRANS-2: Roadway Closure			
Impact TRANS-3: Air Traffic			
Impact TRANS-4: Design Hazards			
Impact TRANS-5: Emergency Response			
Impact TRANS-6: Parking			
Impact TRANS-7: Pedestrians and Bicycles			
Impact TRANS-8: Damage to Roadways	Significant	MM TRANS-8a: Repair roadways damaged by construction activities. If roadways, sidewalks, medians, curbs, shoulders, or other such features are damaged by the Project's construction activities, as determined by the CPUC Environmental Monitor or the affected public agency, the Applicant shall coordinate repairs with the affected public agencies and ensure that any such damage is repaired to the pre-	Less than significant (Class II)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		construction condition within 30 days from the end of construction.	
D.13 Public Services and Utilities			
Impact PUB-1: Impact on and Demand for Public Services	Less than significant	No mitigation required	Less than significant (Class III)
Impact PUB-2: Wastewater Treatment Requirements	Significant	MM HYD-1a and HYDRO-SCE-1 (see above)	Less than significant (Class II)
Impact PUB-3: Water and Wastewater Treatment Facilities	Less than significant	No mitigation required	Less than significant (Class III)
Impact PUB-4: Storm Water Drainage Facilities	Less than significant	No mitigation required	Less than significant (Class III)
Impact PUB-5: Water Supply	Less than significant	No mitigation required	Less than significant (Class III)
Impact PUB-6: Wastewater Treatment Capacity	Less than significant	No mitigation required	Less than significant (Class III)
Impact PUB-7: Landfill and Waste Disposal Needs	Less than significant	No mitigation required	Less than significant (Class III)
Impact PUB-8: Solid Waste Statutes and Regulations	Less than significant	No mitigation required	Less than significant (Class III)
D.14 Agriculture			
Impact AG-1: Designated Farmland	Less than significant	No mitigation required	Less than significant (Class III)
Impact AG-2: Williamson Act Lands	Less than significant	No mitigation required	Less than significant (Class III)

Table ES-2 Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact AG-3: Other Farmland Considerations	Less than significant	No mitigation required	Less than significant (Class III)
D.15 Population and Housing			
Impact POP-1: Population Growth	Less than significant	No mitigation required	Less than significant (Class III)
Impact POP-2: Existing Housing	Less than significant	No mitigation required	Less than significant (Class III)
Impact POP-3: Existing Residents	Less than significant	No mitigation required	Less than significant (Class III)