

CHAPTER 3: ENVIRONMENTAL ANALYSIS

3.1 INTRODUCTION

Chapter 3 of this DEIR examines the environmental consequences associated with the Riverside Transmission Reliability Project (RTRP). This chapter includes analyses of the following resource areas:

- Aesthetics
- Air Quality and Greenhouse Gases
- Cultural Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise
- Public Services and Utilities
- Transportation and Traffic
- Agricultural and Forest Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Mineral Resources
- Population and Housing
- Recreation

These environmental resources are discussed in detail in Sections 3.2.1 through Sections 3.2.15. Analysis within each resource area section includes consideration of the Proposed Project, which is described in detail in Chapter 2 of this DEIR.

3.1.1 PROPOSED PROJECT COMPONENTS

Analysis of potential impacts from the construction and operation and maintenance of the Proposed Project will take into account all components of the Proposed Project. These include:

1. Construction of approximately 10 miles of new double-circuit 230 kV transmission line from the existing Mira Loma – Vista #1 Transmission Line to the proposed Wildlife Substation;
2. Construction of approximately 11 miles of new 69 kV subtransmission lines between 69 kV substations and other existing subtransmission lines within the City of Riverside:
 - Wilderness – Jurupa double-circuit subtransmission lines
 - RERC – Harvey Lynn/Freeman single- and double-circuit subtransmission lines
 - Wilderness – Mountain View double-circuit subtransmission line
3. Construction of two new substations (Wilderness and Wildlife);
4. Upgrade of two 230 kV substations to replace line protection relays (within existing Mechanical and Electrical Equipment Rooms [MEERs]): Mira Loma and Vista;
5. Upgrade of four substations to make minor protection relay modifications, re-arrangement of line terminations and circuit breaker additions: Harvey Lynn, Mountain View, Freeman, and RERC;
6. Relocation of distribution lines; and
7. New fiber optic communications for system control of Wildlife and Wilderness substations and associated 230 kV transmission and 69 kV subtransmission lines.

Please see Chapter 2, Proposed Project Description, for a detailed discussion on each of the Proposed Project components listed above.

Regional Setting

The Proposed Project area as considered within each resource discussion is located in the northwest corner of Riverside County. The majority of the Proposed Project area falls within the City of Riverside, with portions of the proposed 230 kV transmission line reaching into unincorporated Riverside County and crossing the City of Norco. The City of Jurupa Valley was recently incorporated in July 2011, covering the areas crossed by the Proposed Project that were unincorporated Riverside County. The newly formed city has adopted the current Riverside County General Plan elements that would be applicable to the City of Jurupa Valley; therefore, the analysis within this Draft Environmental Impact Report (DEIR) includes Riverside County General Plan designations and consistency reviews for impact analysis purposes.

Modifications within the boundaries of existing SCE substations would occur within the cities of Grand Terrace and Ontario. The Proposed Project area is generally described as bordered on the north by State Route 60 (SR-60), on the west by Interstate 15 (I-15), to the east by Riverside Public Utility's (RPU's) Mountain View Substation, and on the south by the State Route 91 (SR-91). The Santa Ana River bisects the central portion of the Proposed Project area in an east-west orientation.

The natural topography of the Proposed Project area is valley lowland intersected by rolling hills and surrounded by mountain ranges. Elevations range from 680 to 1,900 feet above mean sea level (MSL). Most of the Proposed Project area has been developed. The only remaining large areas of native habitats occur along the Santa Ana River and in the Jurupa Mountains.

The Proposed Project area is characterized by urban, suburban, and rural development intermixed with agriculture and undeveloped lands. Rapid population growth in the Proposed Project area has resulted in increased development accompanied by changes in land use.

3.1.2 GENERAL ASSESSMENT METHODOLOGY

For the purpose of this DEIR, and pursuant to California Environmental Quality Act (CEQA) Guidelines (Section 15124(a)), the baseline conditions used to determine the impacts associated with the Proposed Project and Alternatives are the on-the-ground, physical environmental conditions that existed in the Proposed Project area in Fall of 2009, at the time the revised Notice of Preparation was distributed. Thus, for purposes of this DEIR, the Proposed Project's environmental setting and the baseline conditions used to determine Proposed Project impacts are the same, as is permitted by CEQA (see CEQA Guidelines, § 15125). Additional data were collected beyond the fall of 2009, during development of this DEIR to increase the accuracy of baseline conditions, augment information, respond to scoping comments, update existing data with survey results, or update the environmental setting to reflect recent changes in land uses within the Proposed Project area. Each resource analysis below describes the data collection effort and sources utilized in the impact assessment process.

This DEIR evaluates the environmental consequences and potential impacts that would be caused by the Proposed Project and alternatives if approved and constructed. The impacts identified were compared with significance criteria and, based on these criteria, the impacts have been classified according to significance categories as generally described in each resource section (3.2.1 through 3.2.15) below.

The City of Riverside Public Utilities Department (RPU) and Southern California Edison Company (SCE) developed and incorporated Project-specific measures that include standard practices, design features and procedures into the description of the Proposed Project to protect environmental quality and to avoid or reduce impacts from construction and operation and maintenance (see Chapter 2, Section 2.7, Environmental Protection). The measures are referred to as Environmental Protection Elements (EPEs). These EPEs are integral to the Proposed Project and were applied as part of the Proposed Project in which RPU and SCE operate and develop their electrical systems. Therefore, the EPEs were taken into consideration during the assessment of identified impacts of the Proposed Project, and are not included as mitigation measures. EPEs are identified within each resource impact discussion within this chapter and are specific to avoiding impacts to that particular environmental resource from the construction, operation, and maintenance as part of the Proposed Project. For some CEQA criteria, either no EPEs were available or proposed by SCE or RPU, or the identified EPEs were considered inadequate or too general to avoid impacts. In these instances, mitigation measures were identified and applied to reduce impacts as a result of the Project. Further, where impact analysis identified significant impacts to an environmental resource as a result of the Proposed Project, specific mitigation measures were identified and applied to reduce those impacts, in some cases to a less than significant level. Specific enforceable mitigation measures are identified, and their effectiveness in reducing impacts is discussed within this chapter for each specific resource area. In cases where impacts were found immitigable or no effective mitigation was feasible, or impacts were considered significant even with the application of mitigation measures, statements of overriding consideration are identified.

Mitigation measures have been identified that would reduce or avoid potentially significant adverse impacts. These mitigation measures are presented for consideration by decision makers of the Proposed Project approval. SCE and RPU would be responsible to implement the mitigation measures as they apply to the 230 kV and 69 kV components of the Proposed Project, respectively. The EPEs and mitigation measures that are included within each resource section apply to each component of the Proposed Project unless they identify a specific component. In this case, either RPU or SCE would be responsible depending on that specific component, either 69 kV or 230 kV. It is the responsibility of the City of Riverside, as the Lead Agency under CEQA, to ensure that both utilities implement the identified EPEs and mitigation measures as identified in reducing impacts within this DEIR.

3.2 ENVIRONMENTAL SETTING AND ANALYSIS

3.2.1 AESTHETICS

This section presents the environmental setting and impact analysis for the proposed RTRP. Appendix B (RTRP Aesthetics and Visual Resources Technical Report) contains further detailed information and analysis of the Proposed Project's effects on visual resources, which is summarized in this section.

This section describes effects on visual resources that would be caused by implementation of the RTRP. It also describes the existing environmental conditions of the affected area, briefly explains the methodology of resource inventory and data collection, identifies environmental impacts from the Proposed Project, and provides measures to reduce or avoid adverse impacts anticipated from Proposed Project construction and operation. In addition, existing laws and regulations relevant to visual resources are described. In some cases, compliance with these existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the Proposed Project.

Scoping Issues Addressed

During the scoping period for the DEIR (November – December 2009), a scoping meeting was conducted with the public and government agencies. Written comments were received from agencies and the public that identified various issues and concerns. The following issues related to visual resources that were raised during scoping are addressed in this section:

- Concern that the Proposed Project may be inconsistent with Riverside County General Plan Resource Management goals and policies for visual resources.
- Question regarding the proposed use of lattice steel towers (LSTs) versus tubular steel poles (TSPs).
- Request that the document analyze visual impacts from the perspective of the hiker, cyclist, or horseback rider.
- Concern that the Proposed Project would significantly impact aesthetic quality of the Pedley Hills from recreationists' perspective. Impact to the Santa Ana River Trail (SART) and the historic route of Juan Bautista De Anza was of particular concern.
- Concern that a transmission line across the river and throughout the residential neighborhoods would have a strong negative impact. Taller towers would block the view of the mountains and would impact the views from homes.
- General concerns with the visual quality and aesthetics of the transmission lines, subtransmission lines, and structures. The Proposed Project would impact community character, especially for those within close proximity to existing corridors.

Methodology for Resource Inventory and Other Data Collection

The assessment of visual resources and impacts of the Proposed Project are partially modeled on the United States Department of the Interior, Bureau of Land Management's (BLM) Visual Resource Management System (VRM) as detailed in BLM's 8400 Series Manuals (BLM 1986, 1986a). CEQA guidelines were incorporated into the methodology to properly establish baseline environmental conditions and assess the significance of environmental impacts.

In order to satisfy CEQA guidelines and to assess the current condition of visual resources and

aesthetics in the study area, existing visual resource data were gathered in order to ultimately estimate the significance of expected impacts caused as a result of the Proposed Project. The data gathered and components of the inventory phase of the study include:

- The definition of the detailed study area
- An inventory of agency visual management goals and objectives
- An inventory of the existing regional visual setting
- Identification of landscape character types
- An inventory of scenic quality and visual integrity
- Identification of existing land uses
- Visual sensitivity analysis
- Determination of visibility thresholds and distance zones

Definition of Detailed Study Area

A study area was determined for each Proposed Project component (69 kV subtransmission lines, 230 kV transmission lines, new fiber optic communications, and the new and upgraded substations) based on potential for significant impacts. A 1.5-mile area on each side (total of a three-mile-wide study corridor) of the centerline for the 230 kV transmission lines and a 1.0-mile area on each side (total of a two-mile-wide study corridor) of the centerline for the 69 kV subtransmission lines were inventoried for scenic quality, views, viewer sensitivity, and land uses. Previous studies of transmission line impacts on viewers have shown that thresholds of “high” or “significant” impacts are related to the size and scale of the object being viewed. The three-mile and two-mile thresholds for each of the Proposed Project voltages (and therefore, structure size) represent the expected moderate/low impact threshold for the respective structure types. Views from beyond the three and two mile distances would likely not occur; if the Proposed Project is visible from beyond this distance, the impact on views would be low and less than significant. See Figure 3.2.1-1 for a map of the study area.

Inventory of Agency Visual Management Goals and Objectives

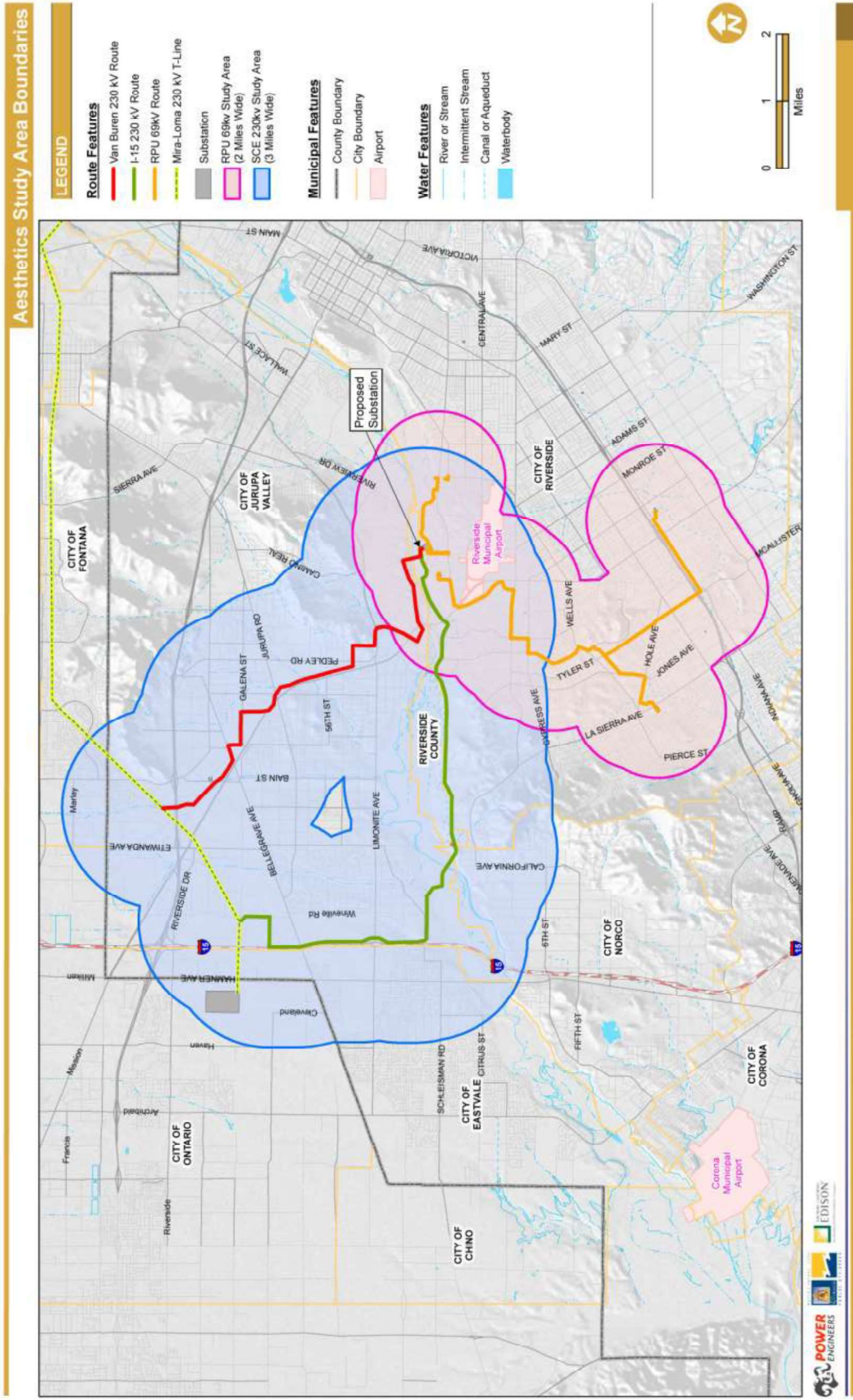
Planning documents from Riverside County, municipalities, and local jurisdictions crossed by the Proposed Project were studied for relevance in transmission line siting and visual resource management. Documentation on existing and proposed scenic highways and roadways was reviewed. Planning personnel were consulted during the process. The construction of high-voltage transmission lines may, at times, conflict with the goals and objectives stated in these planning documents.

Inventory of Existing Visual Setting

Existing regional landform, vegetation, and water features were identified by aerial photography interpretation, Proposed Project area field reconnaissance, and study of existing regional physiography documentation. Documentation of existing regional physiography was reviewed to determine broad landscape patterns in terms of mountain and hill formations, characteristics of river valleys and drainage patterns, topography, and other regionally significant natural features.

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FIGURE 3.2.1-1. AESTHETICS STUDY AREA BOUNDARIES (REVISED)



RIVERSIDE TRANSMISSION RELIABILITY PROJECT



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Identification of Landscape Character Types

Using topographic maps, aerial photography, and site reconnaissance, areas of similar visual character were identified along the alternative routes. These were used as a basis for assessing scenic quality and visual integrity. Landscape Character Types (LCTs) are landscapes where similar natural and cultural patterns occur within the study area. In developed areas, LCTs do not correlate with broader physiographic patterns as well as more natural, undeveloped landscapes because the modification of landscape features (landform, water, vegetation, etc.) often introduces elements that significantly deviate from naturally occurring patterns. LCTs in developed areas are more dependent on settlement patterns, socio-economic factors, local planning and zoning, architectural styles, and numerous other culturally influenced factors.

Inventory of Scenic Quality and Visual Integrity

Relatively homogeneous landscape units were delineated and evaluated for scenic quality (naturally dominated areas) and visual integrity (development-dominated areas) and rated as being Class A (unique), Class B (above average), or Class C (common) landscapes. (also see Bureau of Land Management Manual H-8410-1: Visual Resource Inventory, Illustration 2 “Scenic Quality Inventory and Evaluation Chart”). An area’s scenic quality class was determined by assigning a numeric rating to landscape components such as vegetation, water, color, landform and landscape pattern, and other factors that influence the quality of the visual landscape.

Identification of Existing Land Uses

Study area land use helped identify potential sensitive viewers, viewpoints, and corridors to be evaluated during the sensitivity analysis phase. The location of existing parks and recreation areas, travel corridors, and residences was determined through aerial photography, planning documents, agency contacts, and study area field reconnaissance.

Visual Sensitivity Analysis

Visual sensitivity is a measure of viewer concern for change to the landscape. Viewer sensitivity was determined by determining land uses and estimating overall use levels, user attitudes towards change in the landscape, and duration of views from potentially sensitive viewpoints and corridors identified in the land use study. For example, use level or use volume would be expected to be higher along an interstate highway and lower along a local street. Similarly, a neighborhood park would typically have fewer visitors and lower use volume than a regional park that serves the broader community and has amenities such as hiking trails, extensive natural and wildlife areas, and other features not typically otherwise available at the neighborhood park level.

Sensitive viewers and potentially critical viewpoints that were identified and inventoried generally include recreation areas, travel routes, and residences. All major roads (including designated parkways, gateways and scenic corridors), parks and recreational areas, occupied residences, cemeteries, and similarly identified areas of potential viewer sensitivity were assessed through land use data and site reconnaissance.

Visibility and Distance Zones

After review of previous studies (Jones & Jones, 1976) in similar geographical, topographical,

and environmental settings, visibility thresholds for the 230 kV transmission and 69 kV subtransmission lines were evaluated. From these thresholds, visibility zones were determined for both the proposed new transmission and subtransmission lines. The impact model was adjusted for the influence of smog and pollution on visibility. The urban setting of the Proposed Project was also taken into account in establishing visibility thresholds.

Distance zones for this Proposed Project were based on the BLM VRM framework and modified to reflect the Proposed Project's perception thresholds, the scale and nature of the objects being viewed, and the viewing environment. Table 3.2.1-1 provides the visibility thresholds and distance zones used for the 69 kV and 230 kV components of the Proposed Project.

TABLE 3.2.1-1. VISIBILITY THRESHOLDS USED IN VISUAL ANALYSIS

Visibility Threshold	Proposed Project Component	
	<i>69 kV Subtransmission Line</i>	<i>230 kV Transmission Line</i>
Immediate Foreground	0 to 300'	0 to 500'
Foreground	300' to 1500'	500'-½ mile
Middleground	1500' to ½ mile	½ mile to 1½ mile
Background/Seldom Seen	Beyond ½ mile	Beyond 1½ mile

Environmental Setting

The Proposed Project is located in the Los Angeles Range Section of the Pacific Border Physiographic Province. The region is characterized by narrow ranges and broad fault blocks and alluviated lowlands (Fenneman 1931). The Proposed Project is located between the San Bernardino Mountains to the northeast, the San Gabriel Mountains to the northwest, the Santa Ana Mountains to the southwest, and the San Jacinto Mountains to the southeast. The San Jacinto Valley lies to the southeast of the Proposed Project. The Proposed Project area is located in a valley area occupied by the Santa Ana River, generally centered in the Jurupa Valley. The study area contains a variety of scenic resources such as hills and mountains, river valleys, and rock outcroppings.

Throughout this physiographic region, isolated hills and groups of hills arise from smooth, sloping alluvial plains. These hills are the higher elevations of older mountains that are gradually being filled in and inundated by the alluvial washes. Defined live stream channels are typically confined to mountainous areas that are the source of the sand washes forming the alluvial washes in the dry plains. Larger streams are often "interrupted" in the plains, with alternating flowing water over relatively impermeable substrate and dry channels in porous areas. Native vegetation characteristic of the region is dominated by flat-topped buckwheat, bush penstemon, brittle-brush, white and black sage, and California sagebrush in the form of low, widely spaced shrubs and forbs. Most of the Proposed Project area, however, is disturbed or developed in some way.

The Proposed Project is located in the "Inland Empire" of Southern California in the generally heavily developed area of northwestern Riverside County. Development in the area is a mix of industrial, residential, commercial, parkland, and open space. The most natural areas are limited

to the Santa Ana River corridor, which roughly bisects the Proposed Project study area.

Views of the surrounding hills and mountains (Pedley Hills, Jurupa Mountains, Mount Rubidoux) and Santa Ana River Valley provide the most significant scenic vistas and backdrops in the study area.

A total of 14 LCTs were identified in Proposed Project area. These include:

- I. Forested Riparian Corridor – This landscape type is the most natural of those found in the area. See Figure 3.2.1-2 for a representative view of this Landscape Character Type.
- II. Open Riparian Corridor – This landscape type is primarily located along the northern and eastern sections of the Proposed Project area within the Santa Ana River corridor, where riparian vegetation is very limited and where the riparian river bed is exposed. See Figure 3.2.1-3 for a representative view of this Landscape Character Type.
- III. Transitional Open River – This landscape occurs adjacent to the Santa Ana River where disturbance has visually disconnected the area from the river characteristics but it is still within the floodplain of the river. See Figure 3.2.1-4 for a representative view of this Landscape Character Type.
- IV. Developed Park – These are developed landscapes that are dominated by grassy fields dotted with non-native shade trees and specimen trees. Passive and active recreation may be taking place in the landscapes. See Figure 3.2.1-5 for a representative view of this Landscape Character Type.
- V. Undeveloped Foothill – These landscapes are not developed other than occasional trails, and are typically covered with low-growing grasses and shrubs. Vertical relief in these landscapes is much more pronounced than in valley areas. See Figure 3.2.1-6 for a representative view of this Landscape Character Type.
- VI. Open Field/Remnant Agriculture – These areas are often open, sparsely vegetated landscapes that have not been developed for housing, commercial, or other uses, and may serve some remnant agricultural purpose. See Figure 3.2.1-7.
- VII. Medium Density Unplanned Neighborhood – These areas have a wide variety of architectural styles and development patterns, with secondary structures, such as garages and barns, or occasional small commercial operations are sometimes present. See Figure 3.2.1-8.
- VIII. High Density Planned Neighborhood – These landscapes have houses that are uniformly spaced and set back from the street, and have similar architectural styles, colors and building materials.
- IX. High Density Multi-Unit Neighborhood – These are areas where large, multi-story buildings dominate. Typically these are apartment blocks or complexes.
- X. Mixed Industrial – These landscapes have a variety of industrial and large commercial

buildings with associated transportation infrastructure, ancillary structures and operations, and surface storage areas. The buildings are typically single story, and vary widely in terms of architectural treatments and lot configurations. See Figure 3.2.1-9.

- XI. Strip Commercial/Office – These areas are dominated by large, street-facing parking lots and abundant signage of various styles and sizes. See Figure 3.2.1-10.
- XII. High Density Neighborhood – These areas have various architectural styles and shallow setbacks, and typically occupy areas within the City of Riverside. A variety of historical and architectural styles are represented in this landscape. See Figure 3.2.1-11.
- XIII. Mixed Use (Residential/Commercial/Institutional/Industrial) – These are areas that have a wide variety of land uses, visual quality, and architectural styles. Schools, churches, and houses are present with some small retail stores occasionally present. See Figure 3.2.1-12.
- XIV. Low Density Mixed Use Neighborhood – This character type is visually varied and diverse, with a mix of residential, commercial, and institutional uses.

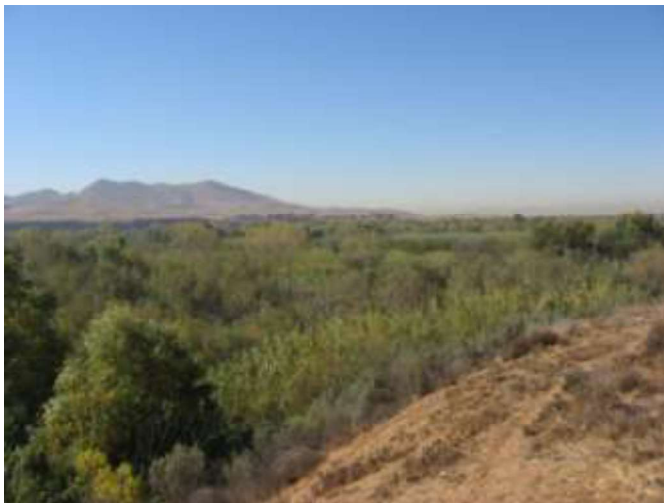


FIGURE 3.2.1-2. FORESTED RIPARIAN CORRIDOR



FIGURE 3.2.1-3. OPEN RIPARIAN CORRIDOR



FIGURE 3.2.1-4. TRANSITIONAL OPEN RIVER



FIGURE 3.2.1-5. DEVELOPED PARK



FIGURE 3.2.1-6. UNDEVELOPED FOOTHILL



FIGURE 3.2.1-7. OPEN FIELD/REMNANT AGRICULTURE



FIGURE 3.2.1-8. MEDIUM DENSITY UNPLANNED NEIGHBORHOOD



FIGURE 3.2.1-9. MIXED INDUSTRIAL



FIGURE 3.2.1-10. STRIP COMMERCIAL/OFFICE



FIGURE 3.2.1-11. HIGH DENSITY NEIGHBORHOOD



FIGURE 3.2.1-12. MIXED USE (RESIDENTIAL/COMMERCIAL/INSTITUTIONAL/INDUSTRIAL)

Regulatory Setting

The visual study area falls in several local jurisdictions that regulate aesthetics and visual quality through local planning documents. Local general plans may have land use, circulation, open space, utilities, and/or scenic highway elements that relate to transmission line siting and visual resource management. Although the Proposed Project's physical elements are located within the City of Riverside, the County of Riverside, and the City of Norco, visual impacts can sometimes be perceived from quite a distance. Accordingly, the visual resources study area reaches into six jurisdictions, portions of which may be able to visually perceive at least a small portion of the Proposed Project. These jurisdictions include: the City of Riverside, the City of Fontana, the City of Norco, the City of Ontario, the City of Eastvale and Riverside County. However, the Proposed Project would be located only on lands within the County of Riverside and the cities of Riverside and Norco. There are no federal-owned lands in the visual study area, other than State Highway 15. The only State-owned land occurs within the California Citrus State Historic Park located in the City of Riverside southeast of the Victoria Avenue/Van Buren Boulevard intersection.

City of Riverside - The proposed 69 kV subtransmission lines are located within the City of Riverside, and a portion of the proposed 230 kV route is located in the City of Riverside. The City of Riverside's General Plan 2025 is currently in place. The City utilizes area plans (specific plans and community plans) as part of its general plan to refine policies to specific or special concern areas as expressed by the public through the planning process.

In the visual study area, there are four specific plans currently in place:

- Riverwalk Vista Specific Plan
- La Sierra University Specific Plan
- Rancho La Sierra Specific Plan
- Riverside Auto Center Specific Plan

These documents are available at the City of Riverside Planning Department or online at the city's website (<http://www.riversideca.gov/planning/cityplans.asp>).

The City of Riverside established five themes that guided the General Plan 2025 and the vision to represent the entire community for the next 20 years. The objectives and policies related to the management of visual resources within the General Plan's Open Space and Conservation Element include the following:

- Objective OS-1: "Preserve and expand open space areas and linkages throughout the City and sphere of influence to protect the natural and visual character of the community and to provide for appropriate active and passive recreational uses." Policies for the implementation of Objective OS-1 include:
 - Policy OS-1.1 to "Protect and preserve open space and natural habitat wherever possible."
 - Policy OS-1.15 to "Recognize the value of major institutional passive open spaces, particularly cemeteries, as important components of the total open space systems and protect their visual character."
- Objective OS-2: "Minimize the extent of urban development in the hillsides, and mitigate any significant adverse consequences associated with urbanization." This objective is reinforced with:
 - Policy OS-2.4 to "Recognize the value of ridgelines, hillsides and arroyos as significant natural and visual resources and strengthen their role as features which define the character of the City and its individual neighborhoods."

The General Plan's Land Use and Urban Design Element section also addresses visual management issues. There are three sections that directly relate to visual resources: City Parkways, City Gateways, and the City's Linear Aerial Utility Facilities. Relevant objectives from those sections are as follows:

- Objective LU-3: Preserve prominent ridgelines and hillsides as important community visual, recreational and biological assets. Policy LU-3.1: Pursue methods to preserve hillside open space and natural habitat.
- Objective LU-11: "Create a network of parkways to establish stronger linkages between Riverside's neighborhoods, major elements of its natural environment and neighborhood parks and schools."
- Objective LU-15: "Recognize Van Buren Boulevard as a significant parkway, linking neighborhoods along its path to the Santa Ana River, the Arlington Heights Greenbelt, Victoria Avenue and the California Citrus State Historic Park." Within the Proposed Project visual study area, Arlington Avenue, Van Buren Boulevard, and La Sierra Avenue are mapped as city parkways.
- Objective LU-21: "Attractively develop the City's major gateways to create a stronger sense of City identity." Within the Proposed Project visual study area, Van Buren Boulevard at the Santa Ana River is mapped as a regional gateway at the City's northern border. On the western border, Arlington Avenue is also identified as a regional gateway into the City. Local gateways are designated along State Highway 91 at La Sierra Avenue, Van Buren Boulevard, and Adams Street.

- Objective LU-29: “Minimize the visual impact of aerial facilities on the City’s landscape.”

City of Riverside specific plans within the 69 kV study corridors are as follows: La Sierra University Specific Plan, Rancho La Sierra Specific Plan and Magnolia Avenue Specific Plan. Only the Rancho La Sierra Specific Plan discusses aesthetic issues pertaining to transmission line siting by accommodating diverse land uses while maintaining the property’s open space character and protecting the Santa Ana River corridor. The Plan provides for recreational and open space uses. See ~~Chapter~~Section 3.2.9 for further Specific Plan discussions.

City of Fontana - The City of Fontana General Plan (2003) has no specific goals regarding major transmission line siting or visual quality management applicable to the Proposed Project routing alternatives. Views from Fontana generally are screened due to intervening topography, SR 60, and buildings. Any portions of the Proposed Project that would be visible would only be in the background and would be of the 230 kV transmission line component of the Proposed Project only.

City of Norco - The City of Norco General Plan is currently being updated, but the current General Plan has no specific goals regarding major transmission line siting or visual quality management applicable to the Proposed Project routing alternatives. Although the General Plan’s Land Use Element refers to vista points and visual corridors in the city, no vista points or visual corridors have been identified or established by the city.

- Policy 2.4.1d. The City shall identify prominent vista points and visual corridors for the purpose of preserving these vital elements of the community’s character.

City of Ontario - The City of Ontario is located outside the Proposed Project area but within the visual study area. The City of Ontario General Plan was updated and approved in January 2010. The City published “The Ontario Plan”, which serves as a comprehensive framework for the community of which the General Plan is a part. The Ontario Plan has no specific goals regarding major transmission line siting but does mention aesthetics quality and management goals related to infrastructure facilities in its Compatibility Section (LU2) of the General Plan’s Land Use Element. Views from the City of Ontario are limited to those from the southeast corner of the city from residences located along Hammer Avenue.

- LU2-6 Infrastructure Compatibility. We require infrastructure to be aesthetically pleasing and in context with the community.
- LU2-7 Inter-jurisdictional Coordination. We maintain an ongoing liaison with LAWA [Los Angeles World Airports], Caltrans, Public Utilities Commission, the railroads, and other agencies to help minimize impacts and improve the operations and aesthetics of their facilities.

City of Eastvale - The City of Eastvale is located outside the Proposed Project area but within the visual study area. Views from Eastvale will occur primarily from the residential area on the west side of I-15 north and south of 68th Street. Currently, there are in no land use plans in effect

for the City. However, the Eastvale Area Plan still applies to the remainder of the unincorporated Eastvale area, which falls in the Proposed Project area, and the following policies from the Eastvale Area Plan apply to the Proposed RTRP.

- Policy EAP 1.2: Require development, where allowable, to be set back an appropriate distance from the top of bluffs, in order to protect the natural and recreational values of the river and to avoid public responsibility for property damage that could result from soil erosion or future floods.
- Policy EAP 1.3: Encourage future development that borders the Policy Area to design for common access and views to and from the Santa Ana River.
- Policy EAP 1.13: Discourage utility lines within the river corridor. If approved, lines shall be placed underground where feasible and shall be located in a manner to harmonize with the natural environment and amenity of the river.

Riverside County/City of Jurupa Valley - The Riverside County General Plan (adopted by Riverside County October 2003 and by the City of Jurupa Valley in July 2011) is applicable to all unincorporated lands within Riverside County, generally located north of the City of Riverside, and south of San Bernardino County, and the City of Jurupa Valley. The 2003 General Plan identifies “Area Plans” specific to geographic boundaries, and includes a Land Use Element, Circulation Element, Multipurpose Open Space Element, Safety Element, Noise Element, Housing Element, Air Quality Element, and Administration Element.

A large portion of the study area is under the jurisdiction of Riverside County. The 230 kV transmission line alternatives are located primarily in unincorporated areas of Riverside County. Area Plans that focus on geographical units are identified in the General Plan. Area Plans applicable to the Proposed Project area include the Jurupa Area Plan and Eastvale Area Plan (as previously described). There are specific “policy areas” identified in these plans that contain special or unique characteristics that merit focused policies. The Jurupa Area Plan has ten policy areas (see the Land Use Technical Report in the Technical Appendices for more detailed information).

Countywide policies that seek to preserve visual quality are located in the Land Use Element (LU), Open Space Element (OS), and Circulation Element (C) of the General Plan, and include:

- LU 6.2: “Notwithstanding the Public Facilities designation, public facilities shall also be allowed in any other land use designation except for the Open Space-Conservation and Open Space-Habitat land use designations. For purposes of this policy, a public facility shall include all facilities operated by the federal government, the State of California, the County of Riverside, any special district governed by the County of Riverside or any city, all facilities operated by any combination of these agencies and all facilities operated by a private person for the benefit of any of these agencies.” See Section 3.2.9 for further discussion.
- LU 6.4: “Retain and enhance the integrity of existing residential, employment, agricultural, and open space areas by protecting them from encroachment of land uses that would result in impacts from noise, noxious fumes, glare, shadowing, and traffic.”

- LU 13.5: “Require new or relocated electric or communication distribution lines, which would be visible from Designated and Eligible State and County Scenic Highways, to be placed underground.”
- LU 25.5: “Require that public facilities be designed to consider their surroundings and visually enhance, not degrade the character of the surrounding area.”
- LU 21.2: “Protect lands designated as Open Space-Mineral Resource from encroachment of incompatible land uses through buffer zones or visual screening (AI 3).”
- ~~LU 25.5: Requires that “public facilities be designed to consider their surroundings and visually enhance, not degrade the character of the surrounding area.”~~
- OS 20.2: “Prevent unnecessary extension of public facilities, services, and utilities, for urban uses, into Open Space-Conservation designated areas.”
- C 25.2: “Locate new and relocated utilities underground when possible. All remaining utilities shall be located or screened in a manner that minimizes their visibility by the public.”

The Jurupa Area Plan the Santa Ana River Corridor Policy Area which contains relevant policies for visual resources as follows:

- JURAP 7.2: “Require development, where allowable, to be set back an appropriate distance from the top of bluffs, in order to protect the natural and recreational values of the river and to avoid public responsibility for property damage that could result from soil erosion or future floods.”
- JURAP 7.3: “Encourage future development that borders the Policy Area to design for common access and views to and from the Santa Ana River.”
- JURAP 7.13: “Discourage utility lines within the river corridor. If approved, lines shall be placed underground where feasible and shall be located in a manner to harmonize with the natural environment and amenity of the river.”

Impact Assessment

Viewshed Analysis

Sensitive viewpoints were modeled in geographic information system (GIS) software to help determine visibility of the proposed transmission and subtransmission lines. Points were centered on travel corridors every 500 feet for trails, moderate- and high-sensitivity roads, gateways, parkways, and scenic boulevards. Analysis points were placed at the parcel perimeter for developed, landscaped parks. Other partially developed parks, such as the Hidden Valley Wildlife Area, were factored into the analysis by placing points along trails, overlooks, picnic shelters, and other developed areas within their boundaries.

For occupied residences, a 300-foot (69 kV) or 500-foot (230 kV) buffer was placed around each route, and all houses within those buffers were digitized into the GIS developed for the Proposed Project. Multi-family residences were estimated using average expected density for the buildings, and digitizing one point which would account for one dwelling unit. Outside the 300-foot or 500-foot buffers, residential points were placed as necessary to adequately account for all worst-case views of the line. Multi-family structures accounted for the greatest potential error margin for occupied residential counts, but would not substantially affect the visibility modeling (See Figures 3.2.1-1 and 3.2.1-2).

The 300-foot or 500-foot buffers were used to model visibility of the transmission line without accounting for terrain. The other distance zones (foreground, middleground, and background) were modeled based on a GIS-generated digital elevation model (DEM). Viewer height for each point (e.g., residential, recreation, travel corridor) was set at five feet to nine feet, and structure heights were modeled based on the Proposed Project description (using ~~average height of 75-foot structures for 69 kV lines and average height of 125-foot structures for 230 kV lines~~). Similar anticipated heights of each structure as determined through preliminary design). Similar approaches were taken to assess visual impacts of the 230 kV and 69 kV Proposed Project components. Slight variations in the approach are necessary due to the size and scale differences between the 69 kV and 230 kV structures. The 230 kV transmission line would be seen in greater detail at a greater viewing distance than the 69 kV subtransmission line. Further, the 69 kV subtransmission lines would be located in a more developed urban setting compared to the 230 kV transmission line. The urban setting would create opportunity for structure and other urban development screening of the Proposed Project components and, therefore, would have a shorter viewing distance than the 230 kV transmission line.

230 kV Transmission Corridors

Visual impacts were evaluated in 1/10-mile increments along each alternative link. Three visual contrast models (Landform, Vegetation, Structure) were used and combined to determine an overall contrast level. The overall contrast level was then weighed with other factors to determine initial impact levels. For example, impacts on residential, recreation, and road viewers were dependent on sensitivity level (moderate or high), viewing condition (immediate foreground, foreground, middleground, or background), and overall contrast level. Scenic quality impacts were based on scenic quality/visual integrity class rating and overall contrast level.

Ground disturbance levels address construction factors such as the extent of new road construction, associated spur road mileage, and land slope. A number of design assumptions are used for the assessment of visual impacts associated with the construction of the 230 kV transmission line portion of RTRP. These ground disturbance assumptions (see Chapter 2, Section 2.5.2) reflect the expected scope of new roadway construction, pulling and tensioning sites, and guard structures. Given the predominant urban setting and flat terrain of the study area, visual impacts due to ground disturbance were expected to be minimal.

Visual contrast is a measure of the degree of physical change in the landscape. Contrast, the measure of actual visual change, is evaluated regardless of how the change is seen by viewers, sensitivity of viewpoints, or viewing conditions. Contrast is determined by the difference in form, line, color, texture, scale, and the landscape juxtaposition between the Proposed Project and its setting. How the visual change is experienced or seen from sensitive viewpoints, or viewer impacts, is addressed in a different part of the analysis.

An overall level of visual contrast is determined by combining the three levels of contrast to assign a final high, moderate, or low level of contrast. The following describes some of the conditions associated with each visual contrast level, with one or more the following conditions occurring:

Strong Visual Contrast

- Contrast caused by construction of new access roads in steep terrain
- Removal of dense riparian vegetation for right-of-way clearing, tower sites, or access roads
- A landscape with no existing transmission lines or other overhead utilities

Moderate Visual Contrast

- Contrasts caused by blading of existing access roads or construction of new access roads in rolling terrain with occasional short, steep slopes
- Removal of grassland or agricultural vegetation for right-of-way, site, or access road clearing
- A landscape where the Proposed Project is smaller in scale to existing nearby or paralleled utility facilities

Weak Visual Contrast

- The use of existing access roads and where there is limited new spur or construction roads
- Minimal removal of vegetation
- A landscape where existing similar transmission line facilities of similar scale would be nearby or paralleled

To determine visual impacts, the overall contrast levels are combined with the visibility and distance zones of sensitive viewpoints (residences, recreation areas, and travel routes) and scenic values (scenic quality and visual integrity) of the landscape. Thus, visual impacts are the result of impacts to sensitive viewers as well as impacts to the inherent visual quality/integrity of the landscape independent of viewers. In both evaluations, visual impacts are based on the result of changes in the landscape in terms of dominance, form, line, color, and texture that occur during construction, operations, and maintenance of the Proposed Project.

High and moderate levels of sensitivity, determined from viewer attitude, use volume, and duration of view for specific viewpoints, were evaluated. Visual changes associated with transmission lines in the landscape are also evaluated in terms of distance zones. The mapping of distance to the Proposed Project from viewpoints helps define the level of visual perception of change that can be expected. To determine sensitive viewer impact levels, the overall contrast levels were overlaid with the visibility and distance zones.

Scenic quality and visual integrity impacts are based on the change in quality and quantity of the visual resources inherent in the landscape without regard to how they are seen from viewpoints. Impacts on scenic quality or visual integrity were determined based on overall contrast level compared to the scenic quality/visual integrity class.

Potential impacts (low, moderate, or high) were recorded into a data table in 1/10-mile increments along the length of the route. The assigned impact levels were determined by evaluation of the results for scenic values, residential, and sensitive viewpoints. Other variables or impact modifiers, such as viewer orientation, Proposed Project location in relation to the viewer, and nature of development context, were also evaluated to obtain the overall impact levels. Where appropriate, impact modifiers were recognized and also incorporated to reflect

final impact levels. Impact modifiers would be relevant and applied where specific site conditions were obvious. Modifiers that were considered to reduce impact levels were conditions where: views are fully or partially obscured by buildings and/or structures; views are oriented away from the Proposed Project; use levels or view expectations are consistently very low; the development context (commercial, industrial, infrastructure, etc.) is compatible with the Proposed Project and not degrading. Impacts are defined as follows:

- **Low Impact**– Viewers and/or scenic quality are barely affected by the construction and operation of the Proposed Project due to low levels of change, blending with existing features, and weak contrast levels.
- **Moderate Impact**– Viewers and/or scenic quality may be adversely affected by the contrasts created by the Proposed Project. Viewers may be close enough to the Proposed Project to notice changes in the landscape, though they do not dominate the viewshed.
- **High Impact** – Viewers and/or scenic quality may be significantly affected as a result of Proposed Project construction and operation. The Proposed Project may dominate views, and is located where no existing infrastructure is currently in place.

69 kV Subtransmission Corridors

Impacts created as a result of the 69 kV subtransmission component of the Proposed Project were determined in a similar manner as the 230 kV transmission line. Visual contrasts were compared to visibility and scenic quality/visual integrity to determine impact levels.

Visual contrast levels were determined by the presence of existing distribution poles and the potential necessity for street tree removal in the road right-of-way. Existing road rights-of-way would be utilized for the 69 kV subtransmission component of the Proposed Project. Thus, landform contrast was not considered given the relatively flat terrain and the urban context of the 69 kV component. Potential tree removal was overlaid with the presence of existing overhead electrical structures that resulted in overall contrast levels.

Substation visual impacts were modeled primarily through an evaluation of the visual simulations and an analysis of the contrasts expected as visible by nearby viewers, and the compatibility within existing land uses.

Photo-Simulations

Eighteen viewpoints or key observation points (KOPs) for photo-simulation study were selected from throughout the visual study area as representative of the Proposed Project's design and environmental context. The simulations are used to evaluate the accuracy and verify the impacts associated with representative viewer locations. The process ensures that spatial relationships, perspective, proportions, and similar attributes are accurate and match existing landscape conditions. Digital imaging, geographic information systems (GIS), computer-aided design (CAD), and global positioning system (GPS) software assisted in the development of the photo-simulations. Various focal lengths were used for the simulations, with some showing wide-angle views (28mm focal length). While the use of 55mm photos would more precisely match the human eye in terms of perspective accuracy and is more often used as compared to a 28mm lens, the use of a wider angle lens gives a broader landscape context to the image while preserving the height and scale of the Proposed Project relative to surrounding features.

The proposed structure types were modeled based on engineering input from RPU and SCE engineering staff to represent the best configurations of distribution underbuild, street light affixation, and other visually important features as currently best known. The simulations are based on the Proposed Project's design, including such features as transmission and subtransmission line structure spotting, access road layout, pulling and tensioning sites, and substation modeling. Final engineering has not been completed during the environmental analysis phase of the Proposed Project, and actual pole locations and underbuild configurations may slightly deviate from the simulation when constructed. These minor deviations will not affect the final analysis or determination of impacts created as a result of the Proposed Project. This is because the Project's greatest aesthetic impacts occur in areas where there is no existing transmission infrastructure or in areas where the Project is causing a major change in the context of the existing visual setting (e.g., presence of sensitive viewers or designated scenic vista, existing scenic quality). Therefore, minor structure location adjustments or other minor deviations would not ultimately alter the findings of significance or overall visual impact determinations.

Photo-simulations were done in areas that reflect typical views in a variety of settings (not necessarily high visual sensitivity areas) at the following locations for the Proposed Project (see Figures 3.2.1-13 through 3.2.1-~~26~~25):

- Viewpoint 1: Wildlife/Wilderness Substations and 230 kV transmission and 69 kV subtransmission lines from Wilderness Avenue & Ed Perkić Street looking north
- Viewpoint 2: 230 kV transmission line from Santa Ana River Trail & Bradford Street looking west
- Viewpoint 3: 230 kV transmission line from Santa Ana River Trail & west of Riverside County Parks Headquarters looking east
- Viewpoint 4: 230 kV transmission line from Santa Ana River Trail west of Hidden Valley Park Entrance road looking southwest
- Viewpoint 5: 230 kV transmission line from I-15 Freeway south of 68th Street overpass looking north
- Viewpoint 6 through Viewpoint 9: photo simulations for Van Buren Offset Alternative (see Visual Resources Technical Report)
- Viewpoint 10: 69 kV subtransmission line from Jurupa Avenue looking east
- Viewpoint 11: 69 kV subtransmission line from Tyler Street looking southeast
- Viewpoint 12: 69 kV subtransmission line from Mull Avenue looking southwest
- Viewpoint 13: 230 kV subtransmission line from the corner of Crest Avenue and Hershey Way looking northeast
- Viewpoint 14: 230 kV subtransmission line from near the corner of 68th Street and Smith Avenue looking southeast to river
- Viewpoint 15: 230 kV subtransmission line from Grulla Court near Pinto Place intersection looking east
- Viewpoint 16: 69 kV subtransmission line from Crest Avenue south of Keller Avenue intersection looking north
- Viewpoint 17: 69 kV subtransmission line from Tyler Mall entrance on Tyler Avenue looking northwest
- ~~Viewpoint 18: 230 kV transmission line from the south end of Vernola Marketplace looking north~~

FIGURE 3.2.1-13. PHOTO SIMULATION VIEWPOINT 1.(REVISED)



FIGURE 3.2.1-14. PHOTO SIMULATION VIEWPOINT 2.(REVISED)



VIEWPOINT 2

View From Near Bradford St. South of Santa Ana River Trail Looking West
- 220 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 12.03 PM
Date of photograph: Dec 19, 2008
Distance to project: 100'
Weather condition: Clear
Viewing direction: West

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

November 2011

FIGURE 3.2.1-15. PHOTO SIMULATION VIEWPOINT 3 (REVISED)



VIEWPOINT 3

View From Hidden Valley Nature Center Overlook Looking East - 220 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 12:20 PM
 Date of photograph: Aug 31, 2010
 Distance to project: 740'
 Weather condition: Clear
 Viewing direction: East

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

November 2011

FIGURE 3.2.1-16. PHOTO SIMULATION VIEWPOINT 4.(REVISED)



FIGURE 3.2.1-17. PHOTO SIMULATION VIEWPOINT 5.(REVISED)



VIEWPOINT 5

View From I-15 South of 68th St. Overpass Looking North - 220 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 03:25 PM
 Date of photograph: Aug 31, 2010
 Distance to project: 1900'
 Weather condition: Clear
 Viewing direction: North

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-18. PHOTO SIMULATION VIEWPOINT 10



VIEWPOINT 10

View From Jurupa Ave Looking East
- 69 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 03:00 PM
Date of photograph: June 07, 2007
Weather condition: Clear
Viewing direction: East

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-19, PHOTO SIMULATION VIEWPOINT 11

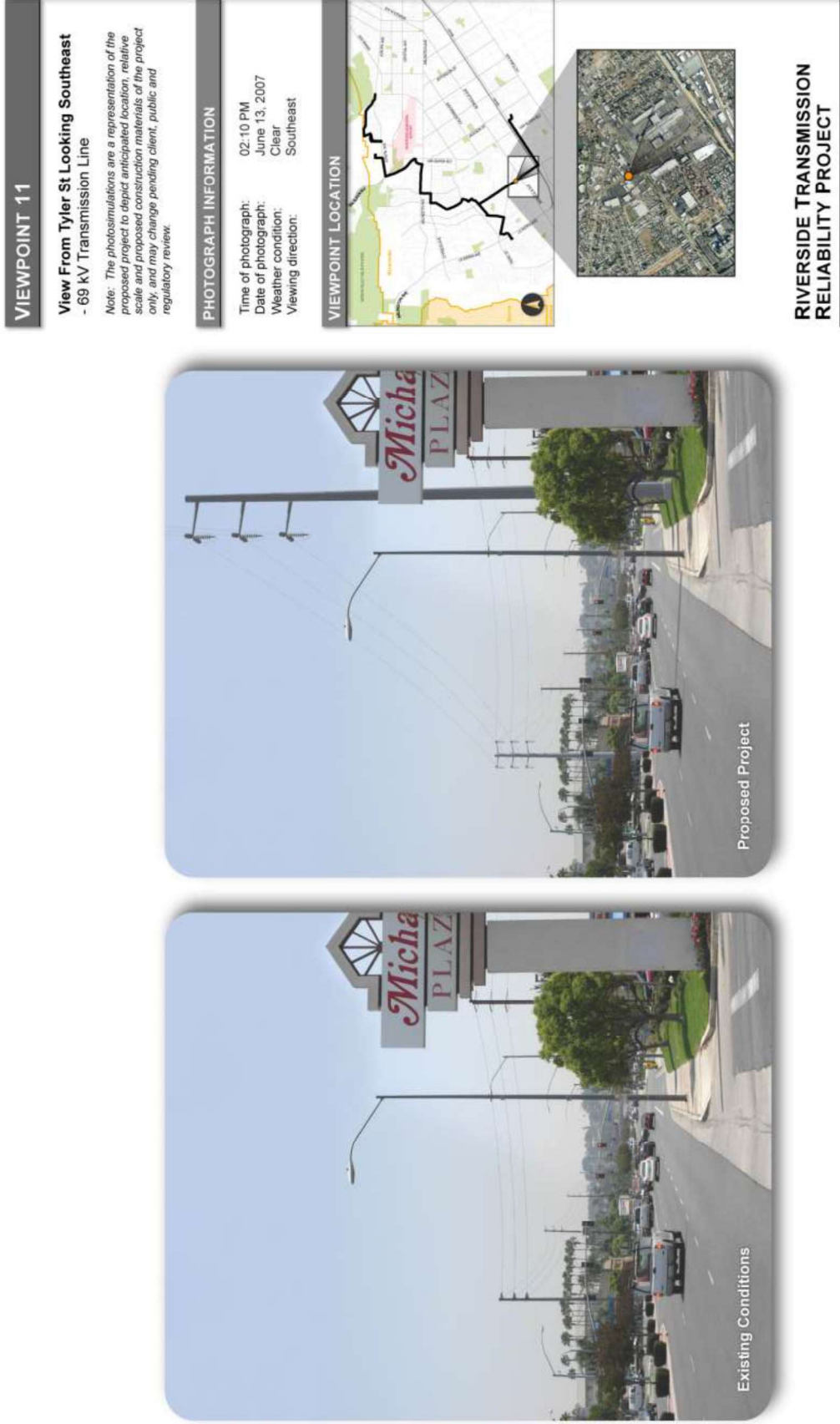


FIGURE 3.2.1-20. PHOTO SIMULATION VIEWPOINT 12



VIEWPOINT 12

View From Mull Ave Looking Southwest
- 69 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 11:17 AM
Date of photograph: Aug 31, 2009
Weather condition: Clear
Viewing direction: Southwest

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-21. PHOTO SIMULATION VIEWPOINT 13 (REVISED)

VIEWPOINT 13

View From the Corner of Crest Ave. and Hershey Way Looking Northeast
- 220 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 01:21PM
 Date of photograph: Aug 31, 2010
 Distance to project: 475
 Weather condition: Clear
 Viewing direction: Northeast

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-22. PHOTO SIMULATION VIEWPOINT 14 (REVISED)



VIEWPOINT 14

View From Near the Corner of 68th St. & Smith Ave. Looking Southeast to River - 220 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 11:38 AM
Date of photograph: Aug 31, 2010
Distance to project: 675'
Weather condition: Clear
Viewing direction: Southeast

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-23. PHOTO SIMULATION VIEWPOINT 15 (REVISED)



VIEWPOINT 15

View From Grulla Ct. Near Pinto Pl. Intersection Looking East
 - 220 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

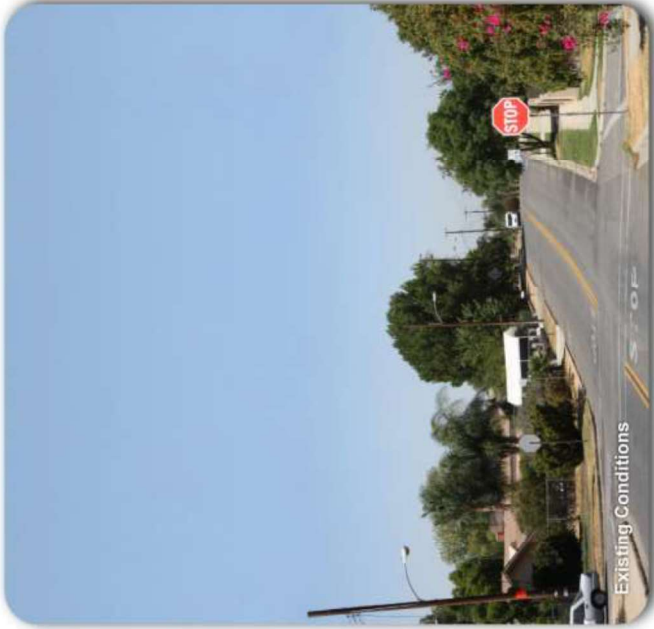
Time of photograph: 11:58 AM
 Date of photograph: Aug 31, 2010
 Distance to project: 575'
 Weather condition: Clear
 Viewing direction: East

VIEWPOINT LOCATION

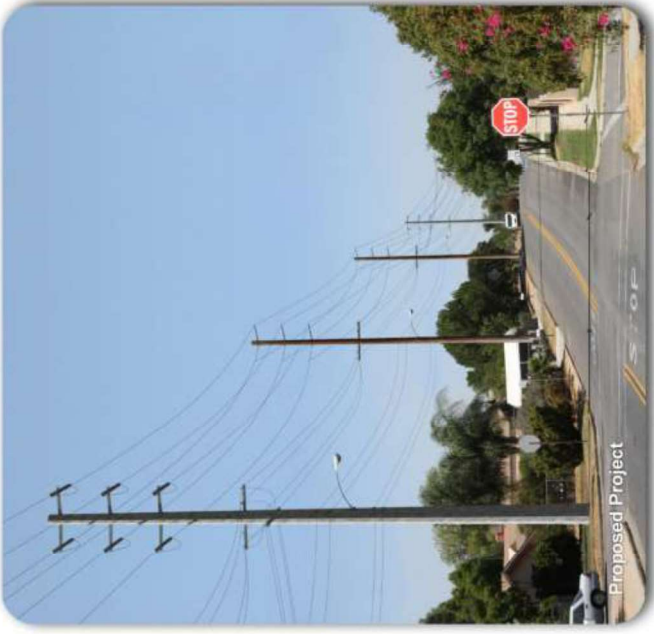
RIVERSIDE TRANSMISSION RELIABILITY PROJECT

November 2011

FIGURE 3.2.1-24. PHOTO SIMULATION VIEWPOINT 16



Existing Conditions



Proposed Project

VIEWPOINT 16


View From Crest Ave. South of Keller Ave. Intersection Looking North
- 69 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only, and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 02:41 PM
 Date of photograph: Aug 31, 2010
 Distance to project: 190'
 Weather condition: Clear
 Viewing direction: North

VIEWPOINT LOCATION



RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-25. PHOTO SIMULATION VIEWPOINT 17



VIEWPOINT 17

View From Tyler Mall Entrance on Tyler Ave. Looking Northwest
- 69 kV Transmission Line

Note: The photosimulations are a representation of the proposed project to depict anticipated location, relative scale and proposed construction materials of the project only and may change pending client, public and regulatory review.

PHOTOGRAPH INFORMATION

Time of photograph: 02:58 PM
Date of photograph: Aug 31, 2010
Weather condition: Clear
Viewing direction: Northwest

VIEWPOINT LOCATION

RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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FIGURE 3.2.1-26. PHOTO SIMULATION VIEWPOINT 18_(DELETED)



Plan Consistency

The Proposed Project would be consistent with the policies identified in the Regulatory Setting section of Section 3.2 where the Project ROW crosses the applicable jurisdictions (City of Riverside General Plan 2025, City of Jurupa Valley/Riverside County General Plan, and City of Norco General Plan).

Significance Threshold Criteria

The assessment of significant visual impacts is weighed in consideration of CEQA requirements. Visual impact significance on aesthetics was determined by impact levels and observed conditions occurring in the study area. Appendix G of the CEQA guidelines recommends the criteria and areas of concern regarding a project's potential impact on visual resources by considering if a project would:

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

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.1-2 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to aesthetics. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.1-2. AESTHETICS AND VISUAL RESOURCES ENVIRONMENTAL PROTECTION ELEMENTS AND APPLICABLE SYSTEM COMPONENTS

Environmental Protection Element	Description	Applicable System Components
AES-01	Transmission lines: Use Nonreflective/Nonrefractive Transmission Structures – Lattice Steel Towers (LSTs) and Tubular Steel Poles (TSPs) with a dulled galvanized grey finish to minimize reflected light will be used.	230 kV Transmission Line
AES-02	Transmission lines and Substations: Use Nonreflective/Nonrefractive Insulators – Insulators that do not reflect or refract light will be used.	230 kV Transmission Line Wildlife & Wilderness Substations Substation Upgrades
AES-03	Transmission lines: Use Nonreflective/Nonrefractive Conductors – Conductors that do not reflect or refract light will be used.	230 kV Transmission Line

Environmental Protection Element	Description	Applicable System Components
AES-04	Substations: Use Low-Reflectivity Structures & Equipment - Substation equipment and structures will have materials that minimize reflective light.	Wildlife & Wilderness Substations Substation Upgrades
AES-05	Substations: Use Hooded, Nonreflective Exterior Light Fixtures/Standards – Exterior light fixtures/standards will be manufactured with hoods and made with nonreflective materials to direct light from spilling off-site as well as skywards while reducing potential effects of glare.	Wildlife & Wilderness Substations Substation Upgrades
AES-06	Placement of Transmission Structures Adjacent to Existing Electrical Infrastructure: Transmission structures will be located adjacent to or in proximity of existing electrical infrastructure.	230 kV Transmission Line 69 kV Subtransmission Lines Fiber Optic Telecommunications
AES-07	Rehabilitation of Vegetation in Storage Areas: Rehabilitate pulling, tensioning, and construction storage areas to original contour and vegetative state.	230 kV Transmission Line 69 kV Subtransmission Lines Fiber Optic Telecommunications
AES-08	Nighttime Construction Lighting: A Construction Safety Lighting Plan will be prepared and implemented and will include but not be limited to: <ul style="list-style-type: none"> Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary. All lighting shall be of minimum necessary brightness consistent with OSHA requirements. 	230 kV Transmission Line Wildlife Substation
AES-09	Staging Areas: Staging areas will be kept organized, and litter and debris will be regularly removed on at least a weekly basis.	230 kV Transmission Line 69 kV Subtransmission Lines Wildlife & Wilderness Substations Substation Upgrades Fiber Optic Telecommunications

Environmental Impacts

a) Would the project have a substantial adverse effect on a scenic vista?

Potentially Significant Impact - There are no designated scenic vistas, as defined by CEQA Guidelines §150304(a) as “officially designated (by federal, state, or local government action),” in the vicinity of the Proposed Project area. Therefore, there would be no impact to designated scenic vistas from construction, operation, or maintenance of the Proposed Project. Therefore, the Proposed Project would not cause substantial change or adverse effects on designated scenic vistas.

Other “scenic vistas” were identified during the scenic quality evaluation, visibility modeling and sensitivity analysis. The Proposed Project is located throughout a developed urban context where existing electrical lines and facilities, diverse development, and mature landscape vegetation routinely block potential vistas. However, scenic vistas do occur where open, unobstructed views of high quality (Class A) landscapes, exclusively located from the parks, recreation, historic and residential viewpoints along the river, occur. The 230 kV transmission

line would affect scenic vistas occurring along the Santa Ana River Trail and residences in the Bradford Street, Grulla Court, Julian Drive, Auld Street, Viceroy Avenue, and 68th Street neighborhoods. Impacts on undesignated scenic vistas may, therefore, be potentially significant.

Views to the surrounding mountains may potentially be affected by the Proposed Project. The blocking of views toward the surrounding mountains is dependent on the location and type of structure used (LST vs. TSP), the viewing position, and the line of sight to the mountains. There are several hills surrounding the Jurupa Valley, along with the Santa Ana Mountains located to the south and the San Gabriel Mountains located to the north. Generally, transmission lines do not tend to block views from specific viewpoints, but rather are visible or impede views while not specifically providing an opaque barrier. Although the conductors (wires) may be in view within a viewshed towards a mountain range, the view would not be blocked, and visibility of the mountains would remain. Adverse affects would occur, but would not be significant based on potential view blockage. There are four locations where structures would potentially be in the direct sightline and partially blocking views towards the San Gabriel or Santa Ana Mountains from houses: 1) along Rutland Avenue/Bradford Street north of Jurupa Ave. directly south of the Santa Ana River; 2) Auld Street/Julian Drive also north of Jurupa Ave.; 3) Grulla Court/Viceroy Avenue north of Arlington Ave. on the south side of the Santa Ana River; and 4) 68th Street north of the Santa Ana River. The exact locations of structures and potential line of sight obstructions would not be known until structure spotting and final engineering is completed. The views to the distant mountains contribute to the appeal of these views, and effects of potential obscurement of the views to these mountains was considered as a worst-case scenario, but it is the vistas of river corridor directly adjacent to these observation points that make views scenic. Significant impacts are not are not based on distant mountain view interference, but as stated above.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact – There are no designated or eligible state scenic highways within the Proposed Project area. Therefore, the Proposed Project would not affect scenic resources within a state scenic highway. Additionally, the Proposed Project would not substantially damage existing scenic resources as the Proposed Project is located throughout a diversely developed urban context where electrical lines and facilities are not uncommon. Other scenic resources (trees, rock outcroppings, etc.) within the study area not associated with a scenic highway are limited and associated with the Santa Ana River corridor. The elements that make up the scenic resources of the corridor, primarily the color and texture of the riparian trees and vegetation, and the linear flowing water and dry season river bed cobblestone, will not be damaged because the ~~design for the~~ transmission structure foundations, access roads, and other Proposed Project features would be constructed outside of these areas.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Impact – The Proposed Project would generally result in incremental changes to the existing visual quality and the landscape character of most of the Proposed Project area. However, there are conditions along the 230 kV component where the route travels adjacent to and crosses the Santa Ana River corridor that would result in greater impacts on recreational and residential viewers. Most of the Proposed Project is located within highly

developed urban areas where transmission, subtransmission, distribution, and other utility facilities are existing visual elements that contribute to the definition of the current landscape character. The majority of the visual resources currently experienced by the public would not be significantly impacted by the addition of the various components of the Proposed Project; however, there are immitigable impacts from some portions of the 230 kV route that would degrade the visual character and quality of the interface of residential, recreational, and the Santa Ana River's trails and open space uses. As presented in Chapter 6 (Alternatives), alternative technologies such as undergrounding may reduce some visual impacts. However, these alternative technologies are infeasible for the 230 kV transmission line due to increased land disturbance during construction, poor accessibility after construction, significantly increased environmental impacts associated with construction (air quality, biological impacts, etc.), increased construction and operational costs, and decreased system reliability due to longer outages. See Chapter 6 for more detail.

230 kV Transmission Line

Emanating from the Wildlife/Wilderness Substations, the proposed route generally heads west along the southern side of the Santa River corridor between the SART and the City of Riverside Water Quality Control Plant. This portion of the route between the substations and Van Buren Boulevard would have low to moderate visual impacts on visual resources as it travels through industrial land uses and areas of low visual quality ~~and viewer sensitivity, and are therefore~~. Because the transmission line would be located in the industrial area of the Water Quality Control Plant and views are directed toward and unimpeded from the SART to the scenic vistas of the Santa Ana River corridor, impacts in this area are less than significant. Continuing west of Van Buren Boulevard, however, the route would have higher visual impacts where high-sensitivity viewers would have scenic vistas of the Santa Ana River corridor affected by the presence of the transmission line. Crossing over Van Buren Boulevard and continuing west, the route would degrade the scenic quality of the Santa Ana River corridor and impact sensitive viewers traveling Van Buren Boulevard (a City-designated Parkway and Gateway), SART users, and residences in the Bradford Street/Julian Drive neighborhoods, causing potentially significant, immitigable impacts (see Photo-simulation Viewpoint 2, Figure 3.2.1-14 and Photo-simulation Viewpoint 13, Figure 3.2.1-21).

In those limited areas where impacts are potentially significant, immitigable, and unavoidable, some impacts (e.g., aesthetic impacts) could be reduced to less than significant if the Project's lines were undergrounded. However, as discussed in detail in Chapter 6 (Alternatives), undergrounding even limited sections of the Project as a means of potential mitigation is infeasible. While undergrounding may reduce some of the Project's potentially significant visual impacts, the overall environmental impacts caused by undergrounding would be greater and, as such, it is not considered a feasible mitigation measure for the Proposed Project. Specifically, undergrounding requires substantially more excavation than overhead structures. This level of ground disturbance would require several times more heavy equipment than overhead construction. Complete ground disturbance along the line (or sections) would make it difficult or impossible to avoid sensitive areas, such as wetlands and stream crossings—particularly in the area where the Project crosses the Santa Ana River. In addition, vegetation restoration options are much more limited for undergrounding as opposed to the currently proposed Project. This is because vegetation growing over an underground line would need to support heat dissipation and prevent root intrusion into the lines. Further, during future repairs of an underground line, entire sections between vaults, approximately 2,000 feet apart, may require re-excavation.

Undergrounded portions within the Santa Ana River corridor would be prone to washouts during a flood event, requiring re-installation. These considerations equate to increased environmental impacts to air quality, agricultural resources, biological resources, cultural resources, and geologic and water resources, as impacts would be inflicted again and again during any future repairs or wash-out incidents. Further, outages would be prolonged on the underground line, due to poor accessibility and time required in identifying the failure location, excavating the underground line, and correcting any outage. Also, economic considerations associated with undergrounding show that undergrounding is infeasible as a mitigation measure, even for more limited sections of the Project, as discussed in Chapter 6. In all, then, undergrounding even a limited portion of the Project as a means of potential mitigation is both infeasible and environmentally more damaging than the currently proposed Project's overhead lines.

As the proposed route continues west adjacent to SART on the south side of the Santa Ana River corridor, residences would be impacted by immediate foreground views of the Proposed Project from the Idyllwild Lane/Dunn Court neighborhood to the east and also from the Viceroy Avenue/Grulla Court neighborhood (see Photo-simulation Viewpoint 15, Figure 3.2.1-23) and the Hidden Valley Wildlife area to the west (see Photo-simulation Viewpoint 3, Figure 3.2.1-15). Impacts on views from this area would be potentially significant and inmitigable, as they would degrade the visual character and quality of the interface of residential, recreational, and the Santa Ana River's trails and open space uses.

~~At this point,~~ The proposed route crosses the Santa River with a single span of ~~nearly a half mile~~ (approximately 2,60025 feet). The span would stretch between two approximately ~~175~~180-foot tall ~~sets of~~ single-circuit, lattice steel structures on each side of the river. The southern ~~set of structures~~structure would be in the immediate foreground view of sensitive viewers in the neighborhood of the Viceroy Avenue/Grulla Court neighborhood and SART users. The northern ~~set of structures~~structure would be located within the Goose Creek Golf Club, which would also be an immediate foreground, high impact to the recreational golfers and would degrade the existing character of the golf course and adjacent river corridor. Impacts on views from this area would be potentially significant and inmitigable, as they would degrade the visual character and quality of the interface of residential, recreational, and the Santa Ana River's trails and open space uses.

The route would continue northwest through the Goose Creek Golf Club to 68th Street near Dana Avenue. Continuing west on the south side of 68th Street, the route would have more moderate impacts as it occurs within undeveloped landscapes of common scenic quality. However, this portion along 68th Street is within the immediate foreground of residential views on the north side of 68th Street (see Photo-simulation Viewpoint 14, Figure 3.2.1-22) and VanderMolen Elementary School on the northwest corner of 68th Street and Wineville Avenue. Impacts in this area would be potentially significant and inmitigable, as they would degrade the visual character and quality of the interface of residential and recreational uses.

The proposed route continues adjacent to 68th Street until it turns north when reaching the I-15 Freeway. The route traverses a variety of landscapes and land uses over approximately 3.5 miles until reaching the Proposed Project tap point connection east of SCE's Mira Loma Substation. Impacts would be less than significant from this portion because the route is located in undeveloped open space or primarily associated with the adjacent I-15 freeway to the west. The freeway is not considered a highly sensitive road for travelers, and impacts would be less than

significant (see Photo-simulation Viewpoint 5, Figure 3.2.1-17). As detailed in the visual technical report, a sensitivity analysis determined that viewing duration of the Proposed Project would be very brief, viewers' concern for change would be moderate to low, and use volumes would be high for the I-15 corridor. The corridor also traverses a highly urbanized corridor, and therefore, the overall sensitivity is moderate.

The re-route of the 230 kV portion of the Proposed Project behind the Vernola Marketplace would shift some of the visual impacts from the commercial development to the area behind the shopping center, adjacent to the I-15 corridor. For the reasons described above, the views along the I-15 corridor are not considered to be highly sensitive, and the same would be true for the location of this incremental addition of 230 kV structures behind the Vernola Marketplace. In addition, the re-route would also have the effect of reducing visual impacts at the front side of the commercial development. Accordingly, the re-route of the 230 kV portion would not generate any additional significant visual impacts compared to the previously considered portion of the route through the Vernola Marketplace.

~~The route would have moderate visual impacts as it passes through the existing Vernola Marketplace commercial center south of Limonite Avenue (see Photo simulation Viewpoint 18, Figure 3.2.1-26) as well as the industrial developments to the north. The route does span Limonite Avenue spans Limonite Avenue in the area of the I-15 interchange, which would present structural contrast and some heightened impact to the travelers on Limonite Avenue. Although residential receptors typically reflect a high sensitivity rating, in this case the residences on the west side of the freeway would be buffered by the freeway corridor and residences adjacent to freeways naturally orientate their viewing behaviors away from the freeway and the proposed route. The north end of the route is low to moderate impact, as it is located within a developed industrial complex. Therefore, any impact would be less than significant.~~

69 kV Subtransmission Lines

Impacts for the 69 kV subtransmission line component are summarized below. Although the impacts from the 69 kV subtransmission lines on visual resources would be similar throughout, they have been functionally defined in three categories:

- Wilderness Substation to Mountain View Substation
- Wilderness Substation to Jurupa Avenue
- RERC to Harvey Lynn Substation and Freeman Substation

The 69 kV portion of the Proposed Project would generally result in incremental changes to the existing visual quality and the landscape character of the Proposed Project area. The 69 kV component is located within highly developed urban areas where subtransmission, distribution and other utility facilities are existing visual elements that contribute to the definition of the current landscape character. Although the Proposed Project ~~travels~~ would be located in immediate foreground views of residences throughout the route, ~~and runs adjacent to the southwestern edge of the existing Van Buren Golf Center,~~ there are no highly visually sensitive areas where 69 kV line construction would be out of scale or in contrast with the existing landscape to the extent where landscape character would be substantially degraded, and impacts would be less than significant (see Photo-simulation Viewpoints 10, 11, 12, 16 ~~& 17, Figures 3.2.1-18, 19, 20-24 & 25),~~ and 17, and Figures 3.2.1-18, 19, 20, 24, and 25). In the area of the Van Buren Golf Course

Center and Van Buren Boulevard, the Proposed Project would be undergrounded. The single shaft steel structures would be similar in scale with the typical 69 kV dead-end structures, and visibility from the Van Buren Golf Center, as well as Van Buren Boulevard, would be very limited. Views of the steel shaft transition structures would generally be screened from the golf center by vegetation and would be brief for Van Buren Boulevard travelers. The access manholes installed along the underground portion of the line in this area would create weak contrasts in the urban setting, and less than significant impacts.

High sensitivity Martha Mclean Anza Narrows Park users entering from Jurupa Avenue would briefly view the Proposed Project. Given the extensively engineered railroad and existing transmission infrastructure in the area, the impacts of the line on park users would be less than significant. Views of the lines from within the park would generally be screened along the railroad, and viewer orientation is directed towards the river valley and hills to the north and northeast; therefore impacts would be less than significant.

There are three locations where the Proposed Project would require the construction of a new 69 kV subtransmission line on the opposite side of the road where distribution lines or other subtransmission lines are located and would remain in place: along Cypress Avenue between Chapel Street and Crest Avenue; along Jurupa Avenue between Martha McLean-Anza Narrows Park and Florence Street; and along Wilderness Avenue. In these areas, the new subtransmission pole spacing would be greater than the approximately 150-foot spacing of the existing distribution poles. The distance between the new poles, up to about 300 feet, would be substantially greater than the distribution poles on the opposite side of the street, and the width of the street diminishes the impacts of the two lines, minimizing the potential for a transmission line “canyon” effect. The Indiana Street alignment would replace the existing transmission structures on the south side of the road, and would retain the visual character of the area due to the presence of the existing transmission line and the similar materials, location, and weak contrasts created by the rebuilt structures. Impacts on existing visual quality or character of the site and surroundings would not be significant.

Wildlife and Wilderness Substations

Visual impacts created by the construction of the new 230 kV and 69 kV substations on the site currently occupied by the Toro Company’s irrigation testing fields would be limited to recreation viewers using the Santa Ana River Trail to the north. The site and its surroundings are dominated and characterized by industrial uses and existing utilities, such as water pipelines and overhead electrical lines. Perimeter walls and fencing will screen many of the visual contrasts created by the substation facilities, providing uniformity to the otherwise complex and visually disordered site. The construction of the substation would cause an incremental change to the industrial character of the site and surroundings, and the contrasts created would be moderate and less than significant (see Photo-simulation Viewpoint 1, Figure 3.2.1-13).

Sensitive viewers using the SART are set back from the site, are in an inferior viewing position (from the base of the bluff), and experience screening effects from the intervening topography. While the orientation of the viewers using the trail is typically towards the river, the substation would dominate the view of trail users approaching from the east. Impacts would be high, but would be reduced substantially with the installation of landscape screening and introduction of vegetation compatible with the area around the substation facility. Impacts, therefore, would be less than significant.

69 kV Substations Upgrades

Substation upgrades would be contained within the confines of the existing perimeter walls of each facility. Perimeter walls and fencing will screen many of the visual contrasts created by the substation facilities, providing uniformity to the otherwise complex and visually disordered site. Additional ancillary structures would slightly increase the industrial nature of the substations, but would not be noticeable to the casual viewer due to very weak structural contrasts created. The associated 69 kV subtransmission lines emanating from the substations would provide the most substantial changes in the landscape. Impacts to nearby sensitive viewers (primarily residences and road travelers) would be low and less than significant.

Fiber Optic Telecommunication System

Telecommunications facilities would result in slight additional visual impact from the Proposed Project. The single-line telecommunications component of the Proposed Project would be built onto existing subtransmission structures, or onto the Proposed Project's subtransmission or transmission structures. As described in Chapter 2, because of the proximity of the proposed new 230 kV transmission line to the existing SCE distribution line, select locations of the telecommunications facilities would be placed underground at the distribution line crossings. No new poles or structures would be required for the telecommunications components. Impacts to nearby sensitive viewers would be low and less than significant.

Construction

Construction-related impacts to visual resources would be temporary and result in low visual impacts. Minimal impacts would result from the presence of construction equipment, materials, and work crews along the subtransmission and transmission routes, and pulling, tensioning, and construction staging areas. Work crews would be required to maintain work areas to be clean and free of debris on a daily basis. A crane would be utilized to erect each transmission structure, and would be the most visually dominant feature during this phase. The 80-ton, 200-foot-tall (approximate maximum size) crane would cause short-term, less than significant impacts related to form, line and movement contrasts in the skyline of the construction area.

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

Less Than Significant Impact – Most of the construction and operation activities associated with the Proposed Project would occur during daylight hours, minimizing the need for construction lighting. Routine construction, operation, and maintenance work would be performed during the day. No overnight construction is planned. Nevertheless, after sunset, construction has the potential to occur from approximately 5 p.m. to 6 p.m. each work day afternoon during the winter months (December, January, February) when twilight settles onto the Proposed Project site. Although this time period is not defined as “night,” artificial illumination may be required to allow for the completion of work tasks and daily clean-up as well as for safety. When work is being performed on the Proposed Project adjacent to or across roads during this time, temporary lighting units would be in operation to provide workers with a level of illumination that will allow the safe continuation of their work. Lighting would be provided by temporary assemblies or permanent fixtures as described in Chapter 2. There would be no helicopter construction activities at night. The potential effects of night-time lighting would affect sensitive views in the Proposed Project area, which are limited to SART and residences located approximately 0.5 mile across the river to the north. SART users would not be affected because the trail is not typically used at night when the intermittent lighting would occur. For the

residential viewers, the lighting would largely be screened from view by the vegetation along the river and a perimeter wall surrounding the subdivision, but where visible, would be less than significant, producing minimal glare that would increase night-time sky brightness similar to that produced by a commercial parking lot. The temporary duration would be during the construction period of the substation, expected to be approximately 14 to 18 months. As part of the Proposed Project, temporary lighting would be directed toward the work areas requiring illumination and away from motorists and residences. Even with integrated EPEs, some minor light and glare would, on occasion, be created for a short time after dusk. However, because motorists, residences and other potentially sensitive receptors are not nearby, SART use times are during daylight hours, and the additional light would not cause a substantial increase in light or glare, the effects on day or nighttime views would ~~also~~ be less than significant due to the implementation of EPEs AES-02, AES-03, AES-05, and AES-08 as described in Table 3.2.1-2. See Section 3.2.4 for discussion of potential impacts to wildlife species related to construction lighting, and proposed mitigation to reduce impacts.

Significant Unavoidable Impacts

The 230 kV transmission line would degrade the scenic quality of the Santa Ana River corridor, and impact sensitive viewers traveling Van Buren Boulevard (a City-designated Parkway and Gateway), Santa Ana River Trail users, and residences in the Bradford Street, Julian Drive, Auld Street, Viceroy Avenue, and 68th Street neighborhoods. As planned, the Proposed Project, including integrated EPEs, would avoid impacts to the maximum extent possible, but not to under a significant level. Significant impacts in these areas will be a result of the proximity of the transmission line (in the immediate foreground), typically as viewed in the context of the Santa Ana River scenic backdrop. EPEs that reduce the reflectivity of the structures and conductors, reduce the scale of the structures, screen views or otherwise attempt to minimize impacts when seen at this distance and in this landscape context will not modify the contrast of the Proposed Project sufficiently to reduce impacts to a less than a significant level because the contrasts created would still be strong for those viewers. There are no feasible mitigation measures to reduce the impact level to less-than-significant due to the contrasts caused primarily by the scale and dominance of the new structures as seen by sensitive viewers located immediately adjacent to Proposed Project. No change in materials or colors would mitigate the form and line contrasts caused by these structures. The installation of screening materials at the scale necessary to block the Proposed Project (100 feet tall, in some places) is not feasible and would not mitigate the change in the character of the Santa Ana River corridor. Therefore, a statement of overriding considerations is required should the Proposed Project be approved.

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3.2.2 AGRICULTURAL AND FORESTRY RESOURCES

This section provides the environmental and regulatory setting within the Proposed Project area and addresses potential impacts resulting from the Proposed Project on agricultural and forest resources.

Environmental Setting

Farmland Classification

The California Department of Conservation (DOC) applies the Natural Resources Conservation Service (NRCS) soil classifications to identify agricultural lands. Pursuant to the DOC's Farmland Mapping and Monitoring Program (FMMP), these designated agricultural lands are included in the Important Farmland Maps ~~(IFM)~~ used in planning for the present and future of California's agricultural land resources. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than ten acres being absorbed into the surrounding classifications.

The list below provides a description of all the categories mapped by the DOC (DOC 2004). Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as Farmland (DOC 2004).

Prime Farmland: Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 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.

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. Farmland of Local Importance in Riverside County is defined as:

- Soils that would be classified as Prime and Statewide but lack available irrigation water. Lands planted to dryland crops of barley, oats, and wheat.
- Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.

- Dairylands, including corrals, pasture, milking facilities, and hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
- Lands identified by city or county ordinance as Agricultural Zones or Contracts, which include Riverside City “Proposition R” lands. Lands planted to jojoba which are under cultivation and are of producing age.

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 one unit to 1.5 acres, or approximately six structures to a ten-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 and 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.

Table 3.2.2-1 shows the acres of agricultural land in Riverside County in 2006 and 2008, as well as the amount of conversion of land from agricultural use to non-agricultural use.

TABLE 3.2.2-1. AGRICULTURAL LAND CONVERSION FROM 2006-2008 IN RIVERSIDE COUNTY

Land Use Category	Total Acres Inventoried		2006-2008 Acreage Changes		
	2006	2008	Acres Lost (-)	Acres Gained (+)	Net Acreage Changed
Prime Farmland	128,505	122,936	6,540	971	-5,569
Farmland of Statewide Importance	46,916	44,651	2,366	101	-2,265
Unique Farmland	37,949	37,135	1,595	781	-814
Farmland of Local Importance	231,085	229,157	8,873	6,823	-2,050
Grazing Land	111,696	111,221	502	27	-475
Agricultural Land Subtotal	556,151	545,100	19,876	8,703	-11,173

Source: FMMP, 2008.

Forest Land Classification

Forest land is land that can support 10-percent native treecover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Timberland is land, other than land owned by the federal government and land designated by the State Board of Forestry as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products.

Existing Agriculture and Forest Resources

230 kV Transmission Line

Agriculture in the Proposed Project area has long been an established land use in the Eastvale, Norco, Glen Avon, and Mira Loma areas and includes field crops (primarily alfalfa), vineyards, and dairy farms. However, with its abundance of relatively flat land with few safety hazards, proximity to the Orange County employment region, and direct access to a major transportation corridor, the area has been undergoing a transition to residential, commercial, and industrial uses.

The proposed 230 kV transmission line would traverse parcels that contain soils classified as *Prime Farmland*, *Farmland of Statewide Importance*, *Unique Farmland*, and *Farmland of Local Importance*.

The proposed 230 kV transmission line would also traverse land under a Williamson Act (agricultural preserve) contract (Mira Loma Agricultural Preserves No. 1, No. 11, and No. 14). Total reported Williamson Act contract enrollment in Riverside County for 2007 was 59,895 acres (California Department of Conservation).

The proposed 230 kV transmission line would traverse forest land (Riparian Forest and Open Woodland) where crossing the Santa Ana River.

69 kV Subtransmission Lines (Wilderness Substation to Mountain View Substation, Wilderness/Wildlife Substation to Jurupa Avenue, RERC to Harvey Lynn Substation and Freeman Substation)

Most of the existing agricultural resources within the City of Riverside are southeast of Victoria Avenue on the south side of SR-91 in the Arlington Heights Greenbelt that was traditionally planted with orange groves. Other areas of agricultural resources are scattered throughout the city, with concentrations located near Arlanza/La Sierra as well as the University of California at Riverside (UCR).

According to FMMP Important Farmland Maps, the proposed 69 kV subtransmission lines are located on designated Urban and Built-up Land with a majority of the surrounding land also characterized as Urban and Built-up Land. No agricultural operations are located within and in the vicinity of the proposed 69 kV subtransmission lines.

According to the City of Riverside General Plan 2025, the proposed 69 kV subtransmission lines will not be located in an existing Agricultural Preserve or on lands under a Williamson Act Contract.

Wildlife and Wilderness 230 kV Substations

The proposed Wildlife and Wilderness Substations would be located on City of Riverside-owned land classified as Farmland of Statewide Importance. The two substation sites are located in a light industrial/manufacturing area currently being leased by the Toro Company for turf irrigation/cutting uses. The land has been under City ownership since the 1970s and has not been used for agricultural production during this time period.

69 kV Substation Upgrades (RERC, Mountain View, Harvey Lynn, Freeman)

The existing RERC, Mountain View, Harvey Lynn, and Freeman Substations are not located on agricultural land.

Fiber Optic Telecommunications System

The fiber optic cable would be installed on existing overhead distribution poles, on new 230 kV transmission structures, or in new underground conduit. New underground fiber cable rights-of-way (ROWs) along the existing distribution pole line would be required for installation of the underground fiber optic cable.

Regulatory Setting

Federal

There are no federal regulations applicable to the Proposed Project with respect to agriculture.

State

California Department of Conservation, Farmland Mapping and Monitoring Program

The California Department of Conservation, under the Division of Land Resource Protection, has developed the FMMP. The FMMP monitors the conversion of the state's farmland to and from agricultural use. The map series identifies eight classifications and uses a minimum mapping unit size of ten acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The FMMP is an informational service only and does not have regulatory jurisdiction over local land use decisions. For the purpose of this environmental analysis and consistency with the federal Farmland Protection Policy Act of 1981, "farmland" includes *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance*.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act, commonly referred to as the Williamson Act, is an agricultural land protection program enacted in 1965. Fundamentally, the Williamson Act is a state policy administered by local governments. Local governments are not mandated to administer the act, but those that do have some latitude to tailor the program to suit local goals and objectives.

A three-way relationship between private landowners, local governments, and the state is central to the Williamson Act. Local governments and landowners voluntarily enter into a contract in which each accepts certain costs in return for other benefits. The landowner forgoes the possibility of development, or converting his or her property into nonagricultural or non-open space use, during the term of the contract, in return for lower property taxes. The local government foregoes a portion of its property taxes in return for the planning advantages and values implicit in retaining land in agriculture or open space. The state supports local governments and landowners in the form of technical and implementation assistance, interpretation of the act, subventions to local governments, research of issues and policies, contract enforcement, and preparation of the Williamson Act Status Report.

Williamson Act contracts have a minimum term of ten years, with renewal occurring automatically each year (local governments can establish initial contract terms for longer periods of time). In Riverside County, the property owner may file a Notice of Non-renewal, stopping the automatic annual renewals and placing the contract in a status in which it runs out over the remaining life of the contract until the contract expires. Alternatively, a property owner may request the cancellation of a contract, which is subject to an approval process and cancellation fees (also referred to as “penalties”), to provide an immediate end to the contract. When a Notice of Non-renewal has matured (i.e., the remaining years have run out and the property is no longer subject to the contract) or a cancellation occurs, removal of the subject land from the affected agricultural preserve requires a separate Board of Supervisors’ action to amend the official county agricultural preserve maps by diminishing or disestablishing the agricultural preserve.

Regional and Local

Riverside County General Plan

The Riverside County General Plan Land Use Element includes the Agricultural Foundation Component, which contains the Agriculture Area Plan. The Agriculture land use designation has been established to help conserve productive agricultural lands within the county. The intent of the General Plan Agriculture Foundation Component and its associated policies is to identify and preserve areas where agricultural uses are the long-term desirable use, as stated in the General Plan Principles: “Provide for the continued and even expanded production of agricultural products by conserving areas appropriate for agriculture and related infrastructure and supporting services.” In addition, the intent of these policies is to minimize the conflicts between agricultural and urban or suburban uses.

The following agricultural conservation policies identified in the General Land Use Element (RCIP, 2003) may be applicable to the Proposed Project.

Policy LU 16.1. Encourage retaining agriculturally designated lands where agricultural activity can be sustained at an operational scale, where it accommodates lifestyle choice, and in locations where impacts to and from potentially incompatible uses, such as residential uses, are minimized through incentives such as tax credits.

Policy LU 16.2. Protect agricultural uses, including those with industrial characteristics (dairies, poultry, hog farms, etc.) by discouraging inappropriate land division in the immediate proximity and allowing only uses and intensities that are compatible with agricultural uses.

Policy LU 16.4. Encourage conservation of productive agricultural lands. Preserve prime agricultural lands for high-value crop production.

Policy LU 16.5. Continue to participate in the California Land Conservation Act (the Williamson Act) of 1965.

Policy LU 5.4. Ensure that development and conservation land uses do not infringe upon existing public utility corridors, including fee owned rights-of-way and permanent easements, whose true land use is that of “public facilities.” This policy will ensure that the “public facilities” designation governs over what otherwise may be inferred by the large scale general plan maps.

Policy LU 25.7. Due to the scale of General Plan and Area Plan maps and the size of the County, utility easements and linear rights-of-way that are narrow in width are not depicted on General Plan and Area Plan maps. These features need to be taken into consideration in the review of applications to develop land and proposals to preserve land for conservation.

The following forest resource conservation policies identified in the Multipurpose Open Space Element (RCIP, 2003) may be applicable to the Proposed Project.

OS 8.1. Cooperate with federal and state agencies to achieve the sustainable conservation of forest land as a means of providing open space and protecting natural resources and habitat lands included within the MSHCPs.

OS 8.2. Support conservation programs to reforest privately held forest lands.

Riverside County Zoning Ordinance

Chapter 12.16 of the Riverside County Zoning Code provides the regulatory framework for Williamson Act agricultural preserves. In Section 12.16.030(A) a list of compatible uses is provided and includes:

- Gas, electric, water and communication utility facilities, and public service facilities of like nature operated by a public agency or mutual water company

City of Riverside General Plan 2025

La Sierra Acres

Policy LU-63.5: Implement the Rancho La Sierra Specific Plan pursuant to Proposition R and Measure C with the following applicable criteria:

- Natural open space areas shall be preserved to protect the natural features of the site such as significant natural hills, steep slopes, rock outcroppings, and arroyos;
- The wildlife refuge, agricultural land, and open space character of the river shall be preserved;
- Any future roads or utility service shall be located so as to protect the wildlife refuge; and
- Public trail access along the river corridor compatible with protection of the wildlife refuge shall be maintained and provide for hiking, bicycling and equestrian use.

Agricultural Preservation – Proposition R and Measure C

Policy OS-3.1: Promote and encourage agriculture as an essential industry and a desirable open space use. The Arlington Heights Greenbelt and La Sierra Lands (i.e., Rancho La Sierra) are important agricultural lands because of their high soil quality, favorable climate and low water costs.

Policy OS-3.2: Identify land for retention and encouragement of agricultural use based on consideration of historic use, soil suitability, agricultural significance, prevailing parcel sizes,

and geographical associations.

Policy OS-3.3: Protect valuable agricultural land from urban development through the use of agricultural zones and other appropriate development regulations, as well as financial and tax incentives.

Policy OS-3.9: Coordinate programs to preserve agricultural lands with other public, private and non-profit organizations where feasible.

Policy OS-4.1: Continue to enforce Proposition R and Measure C.

Policy OS-4.2: Establish buffers and/or open space between agricultural and urban uses so that the potential impacts from urban development will be mitigated.

Policy OS-4.3: Explore the possibility of establishing a fee for all new development in Riverside for land banking to create new buffers and/or purchase sensitive lands between urban development and existing open space resources.

~~The Proposed Project is not inconsistent with Agricultural Preservation — Proposition R and Measure C policies identified in the Rancho La Sierra Specific Plan.~~

City of Norco General Plan (Proposed Project)

The Land Use Element does not have any goals or policies regarding the siting of electrical transmission lines on farmland.

City of Norco Zoning Ordinance (Proposed Project)

According to the City of Norco Zoning Map (City Council Resolution No. 2007-23/Date May 2, 2007), a portion of the proposed 230 kV transmission line is located in the A-E Zone Agricultural Estate.

Impact Assessment

Significance Threshold Criteria

The significance criteria for this analysis were developed from criteria presented in Appendix G of the CEQA Guidelines. The Proposed Project would result in a significant impact to agricultural resources if it would:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
- d) Result in the loss of forest land or conversion of forest land to non-forest use; or
- e) Involve other changes in the existing environment which, due to their location or nature,

could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.2-2 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to agricultural resources. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.2-2. ENVIRONMENTAL PROTECTION ELEMENTS – AGRICULTURAL AND FORESTRY RESOURCES

Environmental Protection Element	Description
AGR-01	<p>Locate Project Activities to Minimize Impacts to Active Agricultural Operations.</p> <ul style="list-style-type: none"> • Transmission structures would be located adjacent to existing electrical infrastructure in order to consolidate any potential obstructions to the movement of agricultural machinery • Access roads, spur roads, staging areas, and pulling/splicing sites would be located in areas that minimize impacts to agricultural operations • Removal of perennial crops would be minimized

Mitigation Measures

Specific mitigation measures (see Table 3.2.2-3) would be applied for impacts related to agricultural and forestry resources.

TABLE 3.2.2-3. MITIGATION MEASURES – AGRICULTURAL AND FORESTRY RESOURCES

Mitigation Measure	Description
MM AGR-01	<p>Restore Soils to Pre-Project Conditions.</p> <ul style="list-style-type: none"> • Replace soils in a manner that shall minimize negative impacts on crop productivity by stockpiling surface and subsurface layers separately and returning those layers to their pre-construction locations in the soil profile. • The top soil layers shall be ripped to restore compacted soils to their original density. Ripping may also be used in areas where vehicle and equipment traffic have compacted the top soil layers.
MM AGR-02	<p>Maintain Irrigation Facilities.</p> <ul style="list-style-type: none"> • Project would be constructed to maintain existing drainage systems, existing irrigation systems and other ancillary farming systems that are needed for farming activities so that agricultural uses are not disrupted. • Maintain existing levels of water available to farmers.

Environmental Impacts

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project would result in impacts to *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance* (hereafter collectively referred to as Farmland). For informational purposes, impacts to

Farmland of Local Importance are provided below; however, from a CEQA perspective, impacts to designated *Farmland of Local Importance* are not considered significant for this Project, and consequently, do not require mitigation.

This impact analysis considers the potential agricultural effects of activities associated with the construction, operation, and maintenance of the Proposed Project, including the upgrades of the RERC, Mountain View, Harvey Lynn, and Freeman Substations. The proposed upgrades of these substations consist of electrical system and safety upgrades. Substation work would occur on previously disturbed areas within the existing footprint of the substations, and the associated construction, operation and maintenance activities would have no impact to agricultural resources.

The fiber optic cable would be installed on existing overhead distribution poles, on new 230 kV transmission structures, or in new underground conduit. New underground fiber cable ROWs along the existing distribution pole line would be required for installation of the underground fiber optic cable.

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

230 kV Transmission Line Construction

Less than Significant Impact with Mitigation. Even with integrated EPEs, the proposed 230 kV transmission line would traverse some Farmland. Construction activities would temporarily impact Farmland designated as *Prime Farmland* (7.4 acres), *Unique Farmland* (2.1 acres), and *Farmland of Statewide Importance* (3.2 acres) due to temporary pulling and tensioning sites, structure assembly areas, and guard pole holes. The proposed 230 kV transmission line would also traverse *Farmland of Local Importance* (4.9 acres). After the completion of construction, these acres would be returned to agricultural use. This impact would be temporary and less than significant with implementation of MM AGR-01 (Restore Soils to Pre-Project Conditions), which would ensure that agricultural lands would be restored to pre-project conditions to allow for the continued use of the land for agricultural purposes.

230 kV Transmission Line Operation

Significant and Unavoidable Impact. While the proposed 230 kV transmission line would have Farmland temporarily converted to non-agricultural uses as described above, Farmland designated as Prime Farmland (0.7 acre), Unique Farmland (0.7 acre), and Farmland of Statewide Importance (0.1 acre) would be permanently converted, as a result of structure placement, to non-agricultural uses. The proposed 230 kV transmission line would also permanently convert Farmland of Local Importance (0.5 acres) to non-agricultural uses. Areas removed from use for the life of the Proposed Project would include the small areas at the transmission structure footings and/or guy anchors. Although the City has considered the imposition of agricultural easements and purchase of mitigation credits as potential mitigation for the Proposed Project's agricultural impacts, the City finds that such easements and credits do not actually avoid, minimize, rectify, reduce, eliminate, or compensate for the permanent loss of agricultural lands, because any such easement or credits would simply restrict development on lands that are already designated as agricultural lands or set aside for agricultural conservation

purposes. As such, the creation of an agricultural easement or purchase of agricultural mitigation credits are not considered by the City to be valid or feasible mitigation under CEQA because neither measure would actually “mitigate” for the loss of agricultural lands. Additionally, the City finds such potential mitigation measures to be infeasible (see CEQA Guidelines, §15370; *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* [2010] 190 Cal.App.4th 316, 352-353 [addressing agricultural easements]). Instead, the City agrees with the conclusion set forth in the *Cherry Valley Pass Acres* decision and the *Friends of the Kangaroo Rat v. California Department of Corrections*, August 18, 2003 (Fifth Appellate District Number F040956, unpub.) decision, both of which confirm that lead agencies may reject agricultural easements as infeasible mitigation and which further support the City’s determination that mitigation credits may be rejected as an infeasible mitigation measure.

In addition, the Riverside County General Plan EIR (Section 4.2.4) states that “There is no reasonable or feasible mitigation to reduce the significant impacts resulting from the loss of agricultural land to a less than significant level. While the implementation of General Plan policies would encourage the conservation of agricultural land, the conversion of State-designated farmland and/or actively utilized agricultural land to non-agricultural uses, remains a significant and unavoidable impact.”

Since there are no feasible mitigation measures for Proposed Project-related loss of these agricultural lands, the impact would remain significant and unavoidable.

Wildlife and Wilderness Substations

No Impact. The proposed Wildlife and Wilderness Substations are located on City of Riverside-owned land classified as Farmland of Statewide Importance. As discussed above, the site of both of the proposed substations is currently being leased by the Toro Company. The land has been under City ownership since the 1970s and has not been used for agricultural production during this time period. The site of both of the substations is surrounded by and located in an area that is classified by the FMMP as Urban and Built-up land. The site is also zoned by the City of Riverside as a Business and Manufacturing Park according to the City of Riverside Zoning Code. As such, no impacts would occur.

69 kV Subtransmission Lines; Substation Upgrades

No Impact. The proposed 69 kV subtransmission lines and substation upgrades do not occur on Farmland. As such, construction activities associated with the 69 kV subtransmission lines; RERC, Mountain View, Harvey Lynn, and Freeman Substation improvements; and the fiber optic telecommunications system infrastructure would not convert Farmland to non-agricultural use.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract.

Less than Significant Impact. The Proposed Project (230 kV transmission line) traverses land under a Williamson Act (agricultural preserve) contract (Mira Loma Agricultural Preserves No. 1, No. 11, and No. 14). A Notice of Non-Renewal has been filed on all three of these agricultural preserves (i.e., the party under contract has started the process with local government to end the contract). Components of the Proposed Project are consistent with Agricultural Preservation – Proposition R and Measure C policies identified in the Rancho La Sierra Specific Plan.

Specifically, the line through the Rancho La Sierra lands is on the outer edge on the north side adjacent or near the Santa Ana River Trail and away from any agricultural lands. This location is consistent with the Rancho La Sierra Specific Plan in protecting the agricultural lands.

The Proposed Project would not conflict with existing zoning for agricultural use. Land under a Williamson Act Contract would be temporarily and permanently disturbed by the Proposed Project. Proposed Project components, however, would be consistent with the Williamson Act because California Government Code Section 51238 states that the construction, operation, and maintenance of electric and communication facilities are compatible uses on lands under Williamson Act contracts, unless otherwise specified by the local board or council. According to Riverside County Ordinance No. 509, gas, electric, water, and communication utility facilities, and public service facilities of like nature operated by a public agency or mutual water company, are considered compatible uses. The placement of transmission structures on land currently under Williamson Act contract would not remove the land from Williamson Act contract status. Thus, there would be a less than significant impact related to Williamson Act status of parcels through which the Proposed Project would traverse. In addition, the transmission line would allow for many agricultural uses under and adjacent to the line.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).

No Impact.

The Proposed Project area does not contain land zoned as forest land, timberland, or timberland for timber production as defined above. Therefore, construction and operation of the Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

d) Result in the loss of forest land or conversion of forest land to non-forest use.

No Impact. As discussed above, the Proposed Project area does not contain land zoned as forest land, timberland, or timberland for timber production. As described in Section 3.2.4, Biological Resources, forest land (riparian forest and open woodland) occurs where the Proposed Project crosses the Santa Ana River. Construction of the Proposed Project, however, does not require the removal or disturbance of this forest land. Therefore, construction and operation of the Proposed Project would not result in the loss or conversion of forest land to non-forest use.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Less than Significant Impact with Mitigation. The Proposed Project has the potential to result in temporary or permanent removal, relocation, and/or replacement of ancillary farming systems such as water pumps, irrigation pipelines, and gas lines. Removing farmers' ability to irrigate crops could effectively render formerly productive Farmland unusable, resulting in the conversion of additional Farmland to non-agricultural use. As proposed, including integration of EPEs, these effects would be minimized to the maximum extent possible without jeopardizing

Project feasibility.

MM AGR-02 (Maintain Irrigation Facilities) would ensure that no additional Farmland is indirectly converted to non-agricultural use because of impacts to existing irrigation and other ancillary systems required for farming productivity. As such, long-term impacts to agricultural operations would be minimized such that impacts would be less than significant.

Significant Unavoidable Impacts

Impacts to agricultural and forest lands, other than the conversion of farmland, are less than significant. However, significant and unavoidable impacts to agricultural resources would result from the Proposed Project's permanent conversion of Farmland for the 230 kV transmission line, which conversion cannot be mitigated to below a level of less than significant. CEQA Guidelines state that "an EIR shall describe feasible mitigation measures which could minimize significant adverse impacts." Various measures have been developed to protect farmland and support the economic viability of agriculture. Some of the techniques that have been developed have resulted in programs that are enacted and administered at the State level, while others are used primarily by local governments.

Several potential farmland protection and preservation measures have been analyzed by the City of Riverside to determine if implementation of any such measures would reduce the impact of the Project on Farmland. Purchasing of agricultural conservation easements and purchasing credits from an agricultural mitigation bank, were analyzed to determine their feasibility in providing adequate mitigation for the loss of the Important Farmland. Each of these, for various reasons, was determined not to be feasible.

In summary, no mitigation measures were found feasible that would reduce the impact to Important Farmland to a level that is less than significant. Therefore, impacts would remain significant and unavoidable, and a statement of overriding considerations will be required should the Proposed Project be approved.

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3.2.3 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This section describes the air quality impacts associated with the construction and operation of the Proposed Project. It outlines the methodology used to conduct the analysis, and identifies the regulations and standards that could apply to these topics.

Environmental Setting

Regional Climate

The topography and climate of Southern California combine to make the South Coast Air Basin an area with a high potential for air pollution, constraining efforts to achieve clean air. During the summer months, a warm air mass frequently descends over the cool moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap, or "inversion," over the cool marine layer and inhibits the pollutants released into the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions which produce ozone, and this region experiences more days of sunlight than many other major urban areas in the nation.

Regional Air Quality

The South Coast Air Quality Management District (SCAQMD) has the responsibility to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone (O₃); carbon monoxide (CO); nitrogen dioxide (NO₂); particulate matter less than 10 microns (PM₁₀); particulate matter less than 2.5 microns (PM_{2.5}); sulfur dioxide (SO₂); and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. California standards are more stringent than federal standards, and, in the case of PM₁₀ and SO₂, far more stringent. California has also established standards for volatile organic compounds (VOC), sulfate, visibility reducing particles, hydrogen sulfide, and vinyl chloride. The state and national ambient air quality standards for each of these pollutants are shown in Table 3.2.3-2.

Health Impacts of Criteria Pollutants

The following paragraphs briefly describe the adverse human health effects of the six criteria pollutants monitored in the Basin.

Ozone

Description: Ozone (O₃) is a gas composed of three oxygen atoms. Ozone is not usually emitted directly into the air, but at ground-level is formed by photochemical reactions between NO_x and VOCs in the presence of sunlight. O₃ is a pungent, colorless gas typical of southern California smog. O₃ levels peak during the summer and early fall months. VOCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower. VOC is also commonly referred to as Reactive Organic Gas.

Health Effects: Breathing O₃ can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma.

Ground-level ozone can also reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. These health problems are particularly acute in sensitive receptors such as the sick, elderly, and young children.

Sources: Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents as well as natural sources emit NO_x and VOC that help form O₃. Sunlight and hot weather cause O₃ to form in harmful concentrations in the air (EPA).

Carbon Monoxide

Description: Carbon monoxide (CO) is a colorless, practically odorless, and tasteless gas or liquid. It results from incomplete oxidation of carbon in combustion.

Health Effects: At low concentrations, CO can cause fatigue in healthy people and chest pain in people with heart disease. At higher concentrations CO can cause impaired vision and coordination, headaches, dizziness, confusion, and nausea, and flu-like symptoms. Acute effects are due to the formation of carboxyhemoglobin in the blood, which inhibits oxygen intake. At moderate concentrations, angina, impaired vision, and reduced brain function may result. At higher concentrations, CO exposure can be fatal.

Sources: Incomplete oxidation during combustion in gas ranges and unvented gas or kerosene heaters may cause high concentrations of CO in indoor air. Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces) can be significant sources. Auto, truck, or bus exhaust from roads or parking areas can be a source (EPA).

Oxides of Nitrogen

Description: Oxides of nitrogen (NO_x) is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. NO_x contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO₂, a reddish-brown gas, and nitric oxide, a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. NO_x is a primary component of the photochemical smog reaction.

Health Effects: NO₂ decreases lung function and may reduce resistance to infection.

Sources: Nitrogen oxides form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels. NO_x can also be formed naturally.

Sulfur Dioxide

Description: Sulfur dioxide (SO₂) is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO₂ levels in the Basin.

Health Effects: SO₂ irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Sources: According to the EPA, in California, the largest emission sources of SO₂ are from fossil fuel combustion, emissions from non-road equipment, and industrial processes.

Particulate Matter

Description: Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air.

Health Effects: Coarse particles can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that fine particles at concentrations that extend well below those allowed by the current PM₁₀ standards, which penetrate deeply into the lungs, are more likely than coarse particles to contribute to the health effects listed in a number of recently published community epidemiological studies. These health effects include premature death, increased hospital admissions, and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.

Sources: Coarse particles (larger than 2.5 microns or PM₁₀) come from a variety of sources, including windblown dust and grinding operations. Fine particles (less than 2.5 microns, or PM_{2.5}) often come from fuel combustion, power plants, diesel buses, and trucks. Fine particles can also be formed in the atmosphere through chemical reactions.

Greenhouse Gases

Greenhouse Gas (GHG) emissions that contribute to global climate change are CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF₆) (CEQA Guidelines Section 15364.5). In response to Executive Order S-3-05 (June 2005), which declared California's particular vulnerability to climate change, the California Global Warming Solutions Act of 2006, Assembly Bill 32 (AB 32), was signed into effect on September 27, 2006. In passing the bill, the California Legislature found that:

“Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.” (California Health & Safety Code, § 38500, Division 25.5, Part 1).

Almost 90 percent of the total GHG emissions in the 1990 inventory were in the form of CO₂ (ARB, 2007). Emissions of CO₂ occur largely from combustion of fossil fuels. Other GHG emissions such as methane and nitrous oxide are also tracked by state inventories but occur in much smaller quantities. The global warming potential of methane and nitrous oxide are 21 and 310 times that of CO₂, respectively. When quantifying GHG emissions, the different global warming potentials of GHG pollutants are usually taken into account by normalizing their rates to a CO₂-equivalent emission rate (CO₂e).

AB 32 required the California Air Resources Board (CARB) to adopt a statewide GHG emissions limit for 2020 based on the 1990 emissions level. CARB staff recommended that the

Board approve 427 million metric tons of carbon dioxide equivalent (MMT CO₂e) as the total statewide aggregated GHG 1990 emissions level and 2020 emissions limit (CARB, 2007). This recommendation was approved by the board on December 6, 2007. CARB staff estimated the 2020 “business-as-usual” emissions level as 596 MMT CO₂e, effectively establishing California’s emission reduction goal at 169 MMT CO₂e.

California’s GHG emissions are large in a global context and growing over time (CARB, 2007). By 2004, the state’s GHG emissions had grown to approximately 484 MMT CO₂e, or roughly one percent of the 49,000 MMT CO₂e emitted globally (IPCC, 2007). Statewide emissions of GHGs in 1990 and 2004 are summarized in Table 3.2.3-1. Emission sources are broken out into seven major categories: transportation; electricity generation; industrial; residential; agriculture; commercial; and forestry.

TABLE 3.2.3-1. GREENHOUSE GAS EMISSIONS BY SECTOR IN 1990 AND 2004

Sector	1990		2004	
	MMT CO ₂ e	Percent of Total Gross Emissions	MMT CO ₂ e	Percent of Total Gross Emissions
Agriculture	23.4	5 percent	27.9	6 percent
Commercial	14.4	3 percent	12.8	3 percent
Electricity Generation	110.6	26 percent	119.8	25 percent
Forestry (excluding sinks)	0.2	<1 percent	0.2	<1 percent
Industrial	103.0	24 percent	96.2	20 percent
Residential	29.7	7 percent	29.1	6 percent
Transportation	150.7	35 percent	182.4	38 percent
Forestry Sinks	-6.7	--	-4.7	--

Source: CARB, 2007

Health Impacts of Greenhouse Gases

The cumulative effect of global climate change has the potential to adversely affect human health. Increased ambient temperatures may cause more intense heat waves, contributing to heat stroke and heat-related deaths. Shifts in weather patterns can also cause draughts and thus food shortages. In addition to the cumulative effects, the individual GHGs are known to have direct health effects. Characteristics, health effects, and sources of the greenhouse gases quantified in this analysis are presented below:

Carbon Dioxide

Description: Carbon dioxide (CO₂) is a colorless, odorless gas at standard temperature. Atmospheric concentrations of CO₂ fluctuate slightly with the change of the seasons, and are more predominant in the winter months.

Health Effects: CO₂ is harmless at atmospheric concentrations (0.038%). It is toxic in high concentrations and has the potential to result in headaches, dizziness, restlessness, paresthesia, dyspnea, sweating, malaise, increased heart rate, elevated blood pressure, coma, asphyxia, and/or convulsions (OSHA). Levels above 4% may be tolerated for short periods of time. OSHA has set and eight-hour exposure limit of 0.5%.

Sources: CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g.,

manufacture of cement) (EPA).

Methane

Description: Methane (CH₄) is a colorless, odorless gas at standard temperature. It is the principal component of natural gas.

Health Effects: CH₄ is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (OSHA).

Sources: CH₄ is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills (EPA).

Nitrous Oxide

Description: Nitrous oxide (N₂O) is a colorless non-flammable gas, with an odor and taste described as slightly sweet. It is commonly known as “laughing gas” due to the euphoric effects of inhaling it.

Health Effects: N₂O is an asphyxiant at high concentrations. At lower concentrations, exposure causes central nervous system, cardiovascular, hepatic, hematopoietic, and reproductive effects.

Sources: N₂O is produced by both natural and human-related sources. Primary human-related sources of N₂O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. N₂O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests (EPA).

Sensitive Receptors

Air quality sensitive receptors are facilities or areas (e.g., residential areas, hospitals, schools, park, offices; see Figures 3.2.9-1 and 3.2.9-2) where degradation of air quality may cause annoyance or loss of business.

Proposed 230 kV Transmission Line

The proposed 230 kV transmission line route into the new Wildlife Substation runs primarily along I-15 and crosses Van Buren Blvd. Residential areas are located less than 100 feet from the route near the intersections of Bradford Street/Julian Drive, Idyllwild Lane/Dunn Court, and Viceroy Avenue/Grulla Court. Additionally, there are a few residential areas near Limonite Avenue that are more than 100 feet from the proposed line route. There are no hospitals or public schools within 100 feet of the proposed route.

Wilderness – Mountain View 69 kV Subtransmission Line

The Wilderness – Mt. View 69 kV subtransmission line route is located partially in residential areas. There are no hospitals, schools, or parks within 100 feet of the proposed route.

RERC – Harvey Lynn/Freeman 69 kV Subtransmission Lines

The RERC – Harvey Lynn/Freeman 69 kV subtransmission line route is located primarily in residential areas. There are no hospitals or public schools within 100 feet of the proposed route. The proposed RERC-Harvey Lynn/Freeman 69 kV subtransmission line route is located within 100 feet of the Lovett’s Children, Inc. State Preschool. The Riverside Municipal Airport is east of the northern end of the line route.

Wilderness – Jurupa Ave 69 kV Subtransmission Line

The Wilderness – Jurupa Ave 69 kV subtransmission line route is located in commercial and industrial areas.

Regulatory Setting

The Proposed Project includes construction but does not include any stationary emission sources, so there are very few direct air quality regulations that specifically regulate the Proposed Project’s air quality emissions sources. The regulations that do apply, such as fugitive dust regulations, are general and allow multiple means of achieving compliance. A description of the specific and general regulations that apply to the Proposed Project is provided below.

Federal

Federal Clean Air Act

The U.S. Environmental Protection Agency (EPA) enforces the Federal Clean Air Act (FCAA) and the associated national ambient air quality standards (NAAQS) for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxides (SO₂), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead. These air quality standards are concentrations above which the pollutant is known to cause adverse health effects.

The EPA defines boundaries of “nonattainment” areas (i.e., geographical areas whose air quality does not meet federal air quality standards designed to protect public health). A nonattainment designation indicates that the air quality violates an ambient air quality standard. An attainment designation indicates that the air quality does not violate the established standard. An unclassified designation indicates that there are insufficient data for determining attainment or nonattainment. EPA requires that states submit State Implementation Plans (SIPs) demonstrating how clean air will be attained or maintained with each air quality basin.

The Proposed Project site is located in the County and City of Riverside, within the South Coast Air Basin (SCAB). The SCAB includes the southern two-thirds of Los Angeles County, all of Orange County, and the western urbanized portions of Riverside and San Bernardino counties. Please refer to Table 3.2.3-3 for state and federal attainment/non-attainment designations.

EPA Endangerment Finding

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that GHG are air pollutants covered by the Clean Air Act. The court held that the administrator must determine whether or not emissions of GHG from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. The Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act was signed on April 17,

2009. On April 24, 2009, the proposed rule was published in the Federal Register under Docket ID No. EPA-HQ-OAR-2009-0171. The administrator proposed to find that:

[G]reenhouse gases in the atmosphere endanger the public health and welfare of current and future generations. Concentrations of greenhouse gases are at unprecedented levels compared to the recent and distant past. These high atmospheric levels are the unambiguous result of human emissions, and are very likely the cause of the observed increase in average temperatures and other climatic changes. The effects of climate change observed to date and projected to occur in the future—including but not limited to the increased likelihood of more frequent and intense heat waves, more wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea level rise, more intense storms, harm to water resources, harm to agriculture, and harm to wildlife and ecosystems—are effects on public health and welfare within the meaning of the Clean Air Act.

State

The California Air Resources Board (CARB) is the state agency that:

1. Sets and enforces emission standards for motor vehicles, fuels and consumer products;
2. Sets health-based air quality standards;
3. Conducts research;
4. Monitors air quality;
5. Identifies and sets control measures for toxic air contaminants;
6. Provides compliance assistance for businesses;
7. Produces education and outreach programs and materials; and
8. Oversees and assists local air quality districts which regulate most non-vehicular sources of air pollution.

CARB approves the regional air quality management plans (AQMPs) for incorporation into the SIP and is responsible for preparing those portions of the SIP related to mobile source emissions. The SIPs are then submitted to EPA for approval. CARB implements the California Clean Air Act (CCAA) requirements, regulating emissions from motor vehicles, and setting fuel standards. The CCAA established ambient air quality standards for ozone, PM₁₀, PM_{2.5}, CO, N₂O, SO₂, lead (Pb), visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. California standards are generally stricter than federal standards.

Table 3.2.3-2 presents the California Ambient Air Quality Standards (CAAQS) and National (Federal) Ambient Air Quality Standards (NAAQS).

TABLE 3.2.3-2. NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	CAAQS ^{1,3}	NAAQS ²	
			Primary ^{3,4}	Secondary ^{3,5}
O ₃	1 hour	0.09 ppm (180 µg/m ³)	---	Same as primary
	8 hours	0.070 ppm (137 µg/m ³) [‡]	0.075 ppm (147 µg/m ³) ⁶	Same as primary
CO	8 hours	9.0 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)	---
	1 hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	---
NO ₂	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³) ⁸	0.053 ppm (100 µg/m ³)	Same as primary
	1 hour	0.18 ppm (339 µg/m ³)	0.100 ppm ^{9,6}	---

Pollutant	Averaging Time	CAAQS ^{1,3}	NAAQS ²	
			Primary ^{3,4}	Secondary ^{3,5}
SO ₂	Annual Arithmetic Mean	---	0.030 ppm (80 µg/m ³)	---
SO ₂	24 hours	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	---
	3 hours	---	---	0.5 ppm (1,300 µg/m ³) ^z
	1 hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³) ⁷	---
Respirable PM ₁₀	Annual Arithmetic Mean	20 µg/m ³	---	Same as primary
	24 hours	50 µg/m ³	150 µg/m ³	Same as primary
PM _{2.5} ⁶	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³	Same as primary
	24 hours	---	35 µg/m ³	Same as primary
Sulfates	24 hours	25 µg/m ³	---	---
Pb	30 day Average	1.5 µg/m ³	---	---
	Calendar Quarter	---	1.5 µg/m ³	Same as primary
	Rolling 3-Month Average ⁹	---	0.15 µg/m ³	Same as primary
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m ³)	---	---
Vinyl chloride ^{7a}	24 hours	0.010 ppm (26 µg/m ³)	---	---
Visibility reducing particles	8 hours	Extinction coefficient of 0.23 per km - visibility of 10 miles or more - due to particles when the relative humidity is less than 70 percent.	---	---

Source: CARB, ~~July-September~~ 2010. Ambient Air Quality Standards Chart (California and Federal). Although information available in the Fall of 2009 (i.e., the NOP issuance date) was generally used as the baseline for the determination of impacts, here data from ~~July-September~~ 2010 is presented because it represents the most recent and accurate data available.

Notes

- California standards for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, 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.
- National standards, other than O₃, particulate matter, and those based on annual averages (or annual arithmetic mean), are not to be exceeded more than once a year. The O₃ standard is attained when the fourth-highest 8-hour concentration, averaged over three 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 one. For PM_{2.5}, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard.
- 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.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ~~New Federal 8-hour O₃ and fine PM_{2.5} standards were promulgated by EPA on July 18, 1997.~~
- ~~To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).~~
- ~~On June 2, 2010, the U.S. EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The EPA also revoked both the existing 24-hour SO₂ standard of 0.14 ppm and the annual primary SO₂ standard of 0.030 ppm, effective August 23, 2010.~~
- ~~The California Air Resources Board (CARB) has identified Pb 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.~~
- ~~The NO₂ ambient air quality standard was amended on February 22, 2007 to lower the 1-hr standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. These changes became effective after regulatory changes were submitted and approved by the Office of Administrative Law in 2007.~~
- ~~To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).~~
- ~~This concentration was approved by the CARB on April 28, 2005, and became effective May, 17, 2006.~~
- ~~National lead standard, rolling 3-month average: final rule signed October 15, 2008.~~

The CCAA requires that each area exceeding the state ambient air quality standards for O₃, CO, SO₂, and NO₂ must develop a plan aimed at achieving those standards (California Health and Safety Code 40911). 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 five percent or more, averaged every consecutive three-year period. To satisfy this requirement, the Air Quality Management Districts (AQMDs) and Air Pollution Control Districts (APCDs) have to develop and implement air pollution reduction measures, which are described in their Air Quality Attainment Plan (AQAP)/AQMP outlining strategies for achieving the state ambient air quality standard for any criteria pollutants for which the region is classified as non-attainment. The AQAP/AQMP outlines both stationary- and mobile-emission source-control measures and emphasizes Transportation Control Measures and Indirect Source Control Measures to reduce mobile-source emissions. These measures are also incorporated into the SIP to satisfy federal requirements.

The CCAA of 1988 required non-attainment areas in the state to prepare AQAPs. The attainment plans are required to achieve a minimum five percent annual reduction in the emissions of non-attainment pollutants unless all feasible measures have been implemented. The SCAB is currently classified as a non-attainment area for O₃, NO₂, PM_{2.5}, and PM₁₀ (Table 3.2.3-3).

TABLE 3.2.3-3. STATE AND FEDERAL ATTAINMENT/NON-ATTAINMENT DESIGNATIONS FOR THE BASIN

Criteria Pollutant	State Status	Federal Status
CO	Attainment	Attainment/Maintenance
NO ₂	<u>Non-attainment</u>	Attainment/Maintenance
SO ₂	Attainment	Attainment
PM ₁₀	Non-attainment	Non-attainment
PM _{2.5}	Non-attainment	Non-attainment
Ozone (1-hour)	Extreme Non-attainment	Extreme Non-attainment*
Ozone (8-hour)	Extreme Non-attainment	Severe-17 Non-attainment
Lead	Attainment	Attainment

*This was the status under a prior standard. The federal 1-hour ozone standard was vacated in 2006. Source: www.arb.ca.gov

Executive Order S-3-05

Establishes statewide GHG emission reduction targets at 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

California Global Warming Solutions Act of 2006 (AB 32)

This law requires CARB to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990 to be achieved by 2020. To achieve this, CARB has a mandate to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

CARB announced early-action GHG reduction measures in June 2007 and established a statewide emissions cap for 2020 in December 2007. In December 2008, CARB adopted

regulations requiring mandatory GHG emissions reporting (Subchapter 10, Article 2, Sections 95100 to 95133, Title 17, California Code of Regulations) and approved a draft scoping plan outlining the main strategies California will use to reduce GHG emissions, including clean-car standards, energy efficiency, the renewable portfolio standard, and the low-carbon fuel standard, among other measures.

SB 375

Enacted in 2008, SB 375 requires metropolitan planning organizations to include sustainable communities strategies, as defined, in their regional transportation plans for the purpose of reducing GHG emissions, aligning planning for transportation and housing, and creating specified incentives for the implementation of the strategies.

Regional

The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB. The SCAQMD operates monitoring stations in the basin, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The AQMP includes control measures and strategies to be implemented to attain state and federal ambient air quality standards. Following approval of the AQMP by CARB and EPA, SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

Methodology for Resource Inventory and Other Data Collection

Since the Proposed Project consists of the installation of three 69 kV sub-transmission line routes, one 230 kV transmission line route, one 230 kV substation (Wildlife Substation), and one 230/69 kV substation (Wilderness Substation), the air quality analysis assessed the significance of air quality impacts for each of these Proposed Project components separately, as they involve different construction activities, schedules, and equipment. The Proposed Project is located within the SCAQMD. Therefore, SCAQMD-provided emission factors for off- and on-road mobile sources were used. Emission factors are specific to various types of construction equipment and to various vehicle model years. SCAQMD emission factors were also used to estimate exhaust emissions from construction and employee vehicle and equipment used during all proposed construction phases.

For the purposes of this analysis, the emissions from the third 69 kV sub-transmission line route from Wilderness to Jurupa Avenue are included with the emissions for the Wilderness to Mountain View 69 kV subtransmission line in the construction emissions tables. Detailed worker vehicle and construction equipment exhaust emissions, fugitive dust emissions due to vehicle travel over paved and unpaved surfaces, and earthmoving activities are provided in Appendix B, Air Quality Technical Report.

Impact Assessment

Introduction

Short-term construction impacts and long-term operational impacts would result from implementation of the Proposed Project. In this section, the potential incremental impacts

associated with the construction and operation of the Proposed Project are analyzed.

Significance Threshold Criteria

The local air quality district of the Proposed Project area is the SCAQMD. The SCAQMD has established significance thresholds to assist the Lead Agencies in determining whether a project may have a significant air quality impact. If the Proposed Project emissions are expected to equal or exceed the significance thresholds established by the SCAQMD, it is considered to have a significant air quality impact. Projects considered to have a significant air quality impact must implement feasible mitigation measures to reduce project emissions to a level considered less than significant, or to the greatest extent possible. SCAQMD has established regional thresholds of significance for construction and operational activities as shown in Table 3.2.3-4. These thresholds are also the *De Minimis* emission thresholds that trigger a General Conformity Determination for non-attainment and maintenance pollutants, which are specifically identified in the General Conformity Rule.

TABLE 3.2.3-4. SCAQMD REGIONAL AIR QUALITY SIGNIFICANT THRESHOLDS FOR AIR POLLUTANT EMISSIONS

Criteria Pollutant	SCAQMD	
	Construction	Operation
	lbs/day	lbs/day
CO	550	550
NO _x	100	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
Volatile Organic Compound (VOC)	75	55

Note: SCAQMD does not provide regional construction or operational thresholds for Pb.
Source: SCAQMD 2010

The Proposed Project is within the SCAB and is currently designated as a severe non-attainment area with respect to the 8-hour NAAQS for O₃; ~~a serious~~ an extreme non-attainment area with respect to the NAAQS for 1-hour O₃ and PM₁₀; and a non-attainment area with respect to the NAAQS for PM_{2.5}. The SCAB is in attainment with the NAAQS for the other criteria pollutants (~~NO₂~~, CO, lead and sulfur dioxide).

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality ~~on sensitive receptors near relatively small project sites~~. Staff at SCAQMD has developed localized significance threshold (LST) methodology that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short-term and long-term). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The use of LSTs by local government is voluntary, to be implemented at the discretion of the local agencies (AQMD 2010: <http://www.aqmd.gov/ceqa/handbook/lst/lst.html>). The Lead Agency will voluntarily implement the LST methodology for the Proposed Project.

SCAQMD has provided LST lookup tables to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects with dimensions of five acres or smaller. For projects larger than five acres, SCAQMD recommends that the LST analysis should be performed using ISCST3. Although the entire Proposed Project footprint is larger than five acres, the Proposed Project is linear in nature and the maximum daily area disturbed is typically less than five acres. In order to more accurately represent the emissions from a linear project that would have a direct impact on the nearby sensitive receptors, the construction activities that would take place within one acre of the nearest receptor were estimated. Therefore, the look-up tables for a one-acre site were used (see Table 3.2.3-5). It should be noted that since emissions would be concentrated over a smaller area, the use of the localized significance threshold for a one-acre site represents a worst-case scenario for the LST analysis. The Proposed Project site is located in SRA 23 and the nearest sensitive receptors are residences located adjacent to portions of the 69 kV subtransmission and 230 kV transmission lines. Therefore, as recommended for use by in the SCAQMD, a LST handbook, the closest available model receptor distance of (25 meters (82 feet)) was used for the transmission lines. The substation portion of the Proposed Project is located within areas where there are no sensitive receptors within at least 100 meters. Therefore, a receptor distance of 100 meters was used for those portions.

TABLE 3.2.3-5. SCAQMD LOCALIZED SIGNIFICANCE THRESHOLDS FOR AIR POLLUTANT EMISSIONS

Criteria Pollutant	Receptor Distance		
	25 meters (82 feet)		100 meters (328 feet)
	Construction lbs/day	Operation lbs/day	Construction lbs/day
CO	602	602	1,746
NO _x	118	118	212
PM ₁₀	4	1	30
PM _{2.5}	1	1	8

Note: SCAQMD does not provide localized construction or operational thresholds for SO_x or VOCs.
Source: SCAQMD 2010

Emissions resulting from single pole construction exceed the SCAQMD's screening LST thresholds; therefore, more detailed modeling was performed utilizing the district-approved SCREEN3 model shown below in Table 3.2.3-6.

TABLE 3.2.3-6. AMBIENT AIR QUALITY FOR CRITERIA POLLUTANTS (LOCALIZED THRESHOLDS)

Pollutant / Standard	Localized Threshold
NO ₂	
1-Hour Average (state)	0.18 ppm
Annual Average (state)	0.030 ppm
PM ₁₀	
24-Hour Average (Construction)	10.4 µg/m ³
24-Hour Average (Operations)	2.5 µg/m ³
PM _{2.5}	
24-Hour Average (Construction)	10.4 µg/m ³
24-Hour Average (Operations)	2.5 µg/m ³

CO	
1-Hour Average	20.0 ppm
8-Hour Average	9.0 ppm

The Environmental Checklist Form provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains a series of questions for determining whether a proposed project will have a “potentially significant impact” on air quality. According to these criteria, a project is determined to have a “potentially significant impact” on air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan; or
- Violate any air quality standards or contribute substantially to an existing or projected air quality violation; or
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); or
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people

In relation to climate change, a significant impact would occur if the project would:

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

According to the CEQA guidelines, a “potentially significant impact” finding is appropriate if there is substantial evidence that an effect may be significant. Furthermore, CEQA Guidelines §15382 define “significant effect on the environment” as “a substantial adverse change in the physical conditions that exist in the area affected by the proposed project.”

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.3-7 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to air quality and greenhouse gas emissions. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.3-7. ENVIRONMENTAL PROTECTION ELEMENTS – AIR QUALITY

Measure Number	Environmental Protection Element
AQ-01	The construction activities shall comply with the South Coast Air Quality Management District (SCAQMD) requirements, as applicable to the project.
AQ-02	Worker Environmental Awareness Program (WEAP) Design and Implementation – A general Air Quality WEAP would be prepared. All construction crews and contractors would be required to participate in this WEAP training prior to starting work on the project. The air quality WEAP may be combined with the general WEAP for sensitive species as described under EPE Bio-04 mitigation measure BIO-05.

Mitigation Measures

Specific mitigation measures (see Table 3.2.3-8) are recommended when it is determined that the Proposed Project, even with integrated EPEs, would result in significant impacts to the environment. These mitigation measures would be applied for impacts related to air quality and greenhouse gases.

TABLE 3.2.3-8. MITIGATION MEASURES - AIR QUALITY

Measure Number	Description
AQ-1	Use ultra-low sulfur diesel fuel (e.g., <15 ppm).
AQ-2	Use of clean burning on- and off-road diesel engines. Heavy duty diesel powered construction equipment manufactured after 1996 (with federally mandated “clean” diesel engines) would be utilized.
AQ-3	Construction workers shall carpool to construction sites.
AQ-4	Restrict construction vehicle idling time to less than 5 minutes.
AQ-5	Properly maintain mechanical equipment
AQ-6	Use particle traps and other appropriate controls to reduce diesel particulate matter (DPM) emissions . Other control equipment includes devices such as specialized catalytic converters (oxidation catalysts) control approximately 20 percent of DPM, 40 percent of carbon monoxide, and 50 percent of hydrocarbon emissions.
AQ-7	Limit vehicle speeds to 15 mph on unpaved surfaces.
AQ-8	On the last day of active operations prior to weekend or holiday, apply water or chemical stabilizer to maintain a stabilized surface.
AQ-9	Water excavated soil piles hourly or cover with temporary coverings.
AQ-10	Moisten excavated soil prior to loading on haul trucks.
AQ-11	Cover all loads of dirt leaving the site or leave at least two feet of freeboard capacity in haul truck to reduce fugitive dust emissions while en route to disposal site.
AQ-12	Application of water to ground surfaces prior and during earthmoving activity.
AQ-13	Implement fugitive dust control measures as provided in SCAQMD Rule 403
AQ-14	Coordinate final construction schedules to prevent 230 kV transmission line conductor installation utilizing helicopter phase from overlapping with the 69 kV subtransmission line and substation grading and foundation installation phases
<u>AQ-15</u>	<u>Provide temporary traffic controls, such as a flag person, during all phases of construction to maintain smooth traffic flow.</u>
<u>AQ-16</u>	<u>Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.</u>
<u>AQ-17</u>	<u>Reroute construction trucks away from congested streets or sensitive receptor areas.</u>
<u>AQ-18</u>	<u>Appoint a construction relations officer to act as a community liaison concerning on-site construction activity, including resolution of issues related to PM₁₀ generation.</u>

Measure Number	Description
AQ-19	<p>During Project construction, all internal combustion engines/construction equipment operating on the Proposed Project site shall meet EPA-Certified Tier 3 emissions standards or higher, according to the following:</p> <ul style="list-style-type: none"> • January 1, 2012 to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. • Post January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations (i.e., if Project construction goes beyond the anticipated schedule). • A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization for each applicable unit of equipment.

Environmental Impacts

Air Quality

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project would result in significant impacts to air quality as it relates to the following significance criteria:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The AQMP for the SCAB sets forth a comprehensive program that will lead the SCAB into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections (SCAQMD 1993, Pg 12-3).

The Proposed Project consists of the construction and operation of transmission and subtransmission lines, which are needed to serve the existing and planned electricity needs of the City of Riverside. The Proposed Project is consistent with the City of Riverside's General Plan 2025 and the County's General Plan 2008 and will not obstruct implementation of the AQMP. Impacts are considered less than significant.

b) Violate any air quality standards or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact with Mitigation. The Proposed Project is within the jurisdiction of the SCAQMD, which has developed thresholds of significance for both regional and localized air quality impacts, which the Proposed Project ~~must~~ will comply with. Table 3.2.3-9 presents the worst case emissions resulting from Proposed Project construction and assumes that the peak emitting construction activities from each construction location occur on the same day. The analysis provided below includes all aspects of the Proposed Project's construction including, but not limited to, construction of all Proposed Project features, trenching for telecommunication lines, construction vehicle and helicopter emissions, haul trips, and employee trips. Conservative assumptions were made for unavailable data, including distance traveled by off-road equipment

at the Project site and on-road vehicles (i.e., trucks hauling construction materials and worker's commute distance). Haul trucks were estimated to travel a roundtrip distance of 30 miles. This is a conservative estimate based on doubling of the roundtrip distance provided by SCE for Proposed Project access roads. Construction worker vehicles were estimated to travel a roundtrip distance of 40 miles. Although California Emissions Estimator Model air quality models provide for a default roundtrip home/work commute distance of 22 miles, for the Proposed Project a distance of haul trip length plus 10 miles (=40 miles) was used. This conservative approach ensures that emissions from these sources are not underestimated.

TABLE 3.2.3-9. PROPOSED PROJECT CONSTRUCTION EMISSIONS/AIR DISTRICT REGIONAL THRESHOLD COMPARISON (WORST CASE, I.E., STANDARD MITIGATIONS APPLIED BUT ALL ACTIVITIES CONCURRENT)

	Peak Daily Construction Emissions (lbs/day) ¹					
	NO _x	VOC	CO	PM ₁₀	PM _{2.5}	SO ₂
RERC-Harvey Lynn/Freeman 69 kV subtransmission line	26.68	3.58	20.35	42.586 3.17	45.431 9.75	0.05
Wilderness-Jurupa-Mountain View 69 kV subtransmission line	24.30	3.34	19.09	26.05	11.88	0.05
I-15 230 kV transmission line (Proposed Project), including telecommunication	61.81	8.01	45.05	66.11	28.56	0.11
Wilderness and Wildlife Substations	36.49	4.24	15.50	36.10	10.44	0.05
Total	149.29	19.16	99.98	170.83 191.43	66.307 0.63	0.27
SCAQMD Daily Regional Significance Thresholds	100	75	550	150	55	150
Exceed Threshold (Yes/No)?	Yes	No	No	Yes	Yes	No

¹ Note: Proposed 230 kV route refinements since publication of the DEIR (see pages 2-6 to 2-7 of this volume) resulted in a slightly shorter 230 kV transmission line, fewer severe angles in the transmission line centerline, fewer total overhead structures, fewer lattice towers, and shorter total access road length and thus a reduction in construction air emissions. In addition, the Riverside County Airport Land Use Commission (ALUC) stipulated in their April 12, 2012 consistency determination that approximately 2,550 feet of the proposed 69 kV line be placed underground (see Section 3.2.7, criterion e) of this chapter). Construction estimates presented in the DEIR included a contingency for up to 60 days of underground construction work for the 69 kV subtransmission line between RERC and Harvey Lynn/Freeman Substations. This contingency was based on design assumptions that included "worst-case" project planning and allowed for a very conservative over-estimate of analyzed air quality emissions to be presented in the DEIR. As a result, mitigative undergrounding stipulated by ALUC and other modifications did not require additional air quality analysis, because project changes and their associated air emissions changes were already captured within the original analysis boundaries. See Table 2.5-2 in Chapter 2 of the DEIR and the Air Quality Technical Report for supporting information.

Under this worst case scenario, peak daily construction emissions exceed the SCAQMD regional thresholds of significance for emissions of NO_x, PM₁₀, and PM_{2.5}.

However, it should be noted that this construction scenario with complete overlap is not feasible given the project construction schedules required for each segment. As shown below in Table 3.2.3-10, major construction activities will be staggered in order to reduce air quality impacts to below significant levels. As shown in the table below, construction would commence in August 2012 on the RERC-Harvey Lynn/Freeman 69 kV lines, and work on this route would be completed by September 2013. Construction on the Wilderness-Jurupa/Mountain View 69 kV lines would commence in August 2013, and be completed by October 2014. In June 2014, construction would commence on the I-15 230 kV line and on the Wilderness/Wildlife Substations and would be completed in July 2015 and May 2015, respectively. Thus, overlap of construction activities would be limited to the following:

- RERC-Harvey Lynn/Freeman 69 kV and Wilderness-Jurupa/Mountain View 69 kV in

August and September 2013,

- I-15 230 kV, Wilderness/Wildlife Substations, and Wilderness-Jurupa/Mountain View 69 kV from June 2014 through October 2014, and
- I-15 230 kV and Wilderness/Wildlife Substations from November 2014 through May 2015.

Furthermore, in order to reduce construction air quality impacts during the I-15 230 kV, Wilderness/Wildlife Substations, and Wilderness-Jurupa/Mountain View 69 kV periods of construction overlap between June 2014 and October 2014, conductor installation/OPGW on the I-15 230 kV line will not overlap with grading for the Wilderness/Wildlife Substations.

Note projected dates provided above are based on assumptions of timely acquisition of all required approvals and permits. Actual construction initiation dates may be different, although any timing differences would not affect the significance conclusions provided herein. However, major construction activity durations and their relationships to each other would remain the same.

TABLE 3.2.3-10. PROPOSED PROJECT CONSTRUCTION EMISSIONS/AIR DISTRICT REGIONAL THRESHOLD COMPARISON (WITH ALL MITIGATION INCLUDING AQ-14, RESTRICTED ACTIVITY OVERLAP)

	Peak Daily Construction Emissions (lbs/day) ¹					
	NO _x	VOC	CO	PM ₁₀	PM _{2.5}	SO ₂
August 2012 - July 2013						
RERC-Harvey Lynn/Freeman 69 kV Route	26.68	3.58	20.35	42.586 3.17	15.431 9.75	0.05
Wilderness-Jurupa-Mountain View 69 kV Route	0	0	0	0	0	0
I-15 230 kV Route (Proposed Project)	0	0	0	0	0	0
Wilderness and Wildlife Substations	0	0	0	0	0	0
Total	26.68	3.58	20.35	42.586 3.17	15.431 9.75	0.05
SCAQMD Regional Significance Thresholds	100	75	550	150	55	150
Exceed Threshold (Yes/No)?	No	No	No	No	No	No
August 2013 - September 2013						
RERC-Harvey Lynn/Freeman 69 kV Route	26.68	3.58	20.35	42.586 3.17	15.431 9.75	0.05
Wilderness-Jurupa-Mountain View 69 kV Route	24.30	3.34	19.09	26.05	11.88	0.05
I-15 230 kV Route (Proposed Project)	0	0	0	0	0	0
Wilderness and Wildlife Substations	0	0	0	0	0	0
Total	50.98	6.91	39.44	68.628 9.22	27.303 1.63	0.10
SCAQMD Regional Significance Thresholds	100	75	550	150	55	150
Exceed Threshold (Yes/No)?	No	No	No	No	No	No
October 2013 - May 2014						
RERC-Harvey Lynn/Freeman 69 kV Route	0	0	0	0	0	0
Wilderness-Jurupa-Mountain View 69 kV Route	24.30	3.34	19.09	26.05	11.88	0.05
I-15 230 kV Route (Proposed Project)	0	0	0	0	0	0
Wilderness and Wildlife Substations	0	0	0	0	0	0
Total	24.30	3.34	19.09	26.05	11.88	0.05
SCAQMD Regional Significance Thresholds	100	75	550	150	55	150

	Peak Daily Construction Emissions (lbs/day) ¹					
	NO _x	VOC	CO	PM ₁₀	PM _{2.5}	SO ₂
Exceed Threshold (Yes/No)?	No	No	No	No	No	No
June 2014 - October 2014						
RERC-Harvey Lynn/Freeman 69 kV Route	0	0	0	0	0	0
Wilderness-Jurupa-Mountain View 69 kV Route	11.01	3.46	8.41	9.84 11.01	4.78	0.44 0.11
I-15 230 kV Route (Proposed Project)	25.50	3.37	15.36	18.92	7.30 23	0.44 0.03
Wilderness and Wildlife Substations	36.49	4.24	15.50	36.10	10.44	0.05
Total	73.01	11.07	39.27	64.87 9.06	22.52 1.45	0.27 0.14
SCAQMD Regional Significance Thresholds	100	75	550	150	55	150
Exceed Threshold (Yes/No)?	No	No	No	No	No	No
November 2014 - May 2015						
RERC-Harvey Lynn/Freeman 69 kV Route	0	0	0	0	0	0
Wilderness-Jurupa-Mountain View 69 kV Route	0	0	0	0	0	0
I-15 230 kV Route (Proposed Project)	61.81	8.01	45.05	66.11	28.56	0.11
Wilderness and Wildlife Substations	36.49	4.24	15.50	36.10	10.44	0.05
Total	98.31	12.25	60.54	102.21	39.00	0.16
SCAQMD Regional Significance Thresholds	100	75	550	150	55	150
Exceed Threshold (Yes/No)?	No	No	No	No	No	No

¹Note: see footnote in Table 3.2.3-9 above.

As presented above in Table 3.2.3-10, the four locations of Proposed Project construction would not overlap completely. The Proposed Project, including integrated EPEs, would be designed to comply with SCAQMD requirements for significance thresholds. However, because of the general nature of applicable environmental protection, specific enforceable mitigation is required to ensure that impacts are reduced to a level of less than significance. Implementation of Air Quality mitigation measures AQ-1 through ~~13~~19 would reduce impacts. Mitigation measure AQ-1 would require clean burning diesel fuel to reduce SO₂ emissions. Mitigation measure AQ-2 would maximize use of clean burning engine through requiring post-1996 equipment for all diesel equipment types for which its available. Mitigation measures AQ-4 and 5 would reduce fuel use by restricting idling times to 5 minutes and keeping vehicles maintained. Control devices required by mitigation measure AQ-6 would reduce release of combustion-related particulates and pollutants. Mitigation measures AQ-7 through 13 would control fugitive dust through speed restriction watering, load level limits and covering of transported soil. However, application of these mitigation measures would still not reduce impacts to a level of less than significance for all phases of construction. ~~The additional~~ Implementation of a modified overlapping schedule, as required under mitigation measure AQ-14, would result in the Proposed Project not exceeding the SCAQMD regional significance thresholds. Mitigation measures AQ-15 and AQ-16 would minimize vehicle idling time by implementing traffic controls and providing dedicated turn lanes for movement of construction trucks and equipment, respectively, during construction. Mitigation measure AQ-17 would limit emission exposure from construction equipment in sensitive receptor areas. Mitigation measure AQ-18 would provide a construction relations officer to act as a community liaison to resolve issues related to air quality. Mitigation measure AQ-19 would require that all combustion engines and construction equipment meet EPA-certified Tier 2 emissions standards or higher. Thus, short-term construction air pollutant emissions are less than significant.

Upon completion of the proposed Project, the only operational emissions would be generated from transmission line, subtransmission line, and substation maintenance activities. No Proposed Project facility would have permanent staff, so no new “commuter destinations” would be created. It is conservatively estimated that maintenance operations would consist of a maintenance truck driving the length of ~~the~~ Proposed Project alignments once every two weeks. As shown below in Table 3.2.3-11, operational air pollutant emissions generated during testing and from maintenance vehicles would be negligible and considered to have a less than significant air quality impact.

TABLE 3.2.3-11. PROPOSED PROJECT UNMITIGATED OPERATIONAL MAINTENANCE EMISSIONS/AIR DISTRICT REGIONAL THRESHOLD COMPARISON

	Peak Daily Operational Maintenance Emissions (lbs/day)					
	NO _x	VOC	CO	PM ₁₀	PM _{2.5}	SO ₂
I-15 230 kV Route (Proposed Project)	0.82	0.10	0.74	10.83	6.06	0
SCAQMD Daily Regional Significance Thresholds	55	55	550	150	55	150
Exceed Threshold (Yes/No)?	No	No	No	No	No	No

Therefore, the Proposed Project does not violate any air quality standards and long-term emissions from Proposed Project operational maintenance are considered less than significant on a regional and localized level and no mitigation for operational emissions are required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Significant Impact. The portion of the SCAB within which the Proposed Project is located is designated as a non-attainment area for NO₂, ozone, PM₁₀, and ~~PM₁₀~~PM_{2.5} under state standards, and as a non-attainment area for ozone, PM₁₀, and PM_{2.5} under federal standards.

Section 21100(e) of CEQA states that “previously approved land use documents including, but not limited to, general plans, specific plans, and local coastal plans, may be used in cumulative impact analysis.” In addressing cumulative effects for air quality, the AQMP utilizes approved general plans and, therefore, is the most appropriate document to use to evaluate cumulative impacts of the Proposed Project. This is because the AQMP evaluated air quality emissions for the entire South Coast Air Basin using a future development scenario based on population projections and set forth a comprehensive program that would lead the region, including the Proposed Project site, into compliance with all federal and state air quality standards. The Proposed Project is in compliance with the AQMP and both short-term and long-term emissions are below all applicable SCAQMD established regional and localized thresholds of significance.

However, for cumulative assessment purposes, the potential existence of nearby concurrent cumulative projects would add to these regional emission totals. The cumulative project list in Chapter 4 shows projects within one mile of the Proposed Project. While not all of these projects would occur at the same time as the Proposed Project, it can be assumed that one or more other projects will be in construction or will start operations and cause emissions that exceed regional thresholds for NO_x, all non-attainment criteria pollutants and thus would be considered cumulatively significant with those of the Proposed Project’s construction at some point. It is too

speculative to present an accurate estimate of emissions from all potential projects within the Proposed Project area, as specific project information is not available and potential construction schedules are likely to change. Furthermore, the lead agency does not have the authority to mitigate the impacts from all nearby concurrent projects in the area. Even with application of Mitigation Measures as listed in Table 3.2.3-8, the combined effect of construction emissions from the Proposed Project and other projects' construction and/or operating emissions would be cumulatively significant at various times during construction.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Most of the construction of the Proposed Project is within residential/commercial areas in Riverside. The closest residences have been estimated to be less than 25 meters away, and the closest ~~schools have~~ school (Lovett's Children, Inc.) has been estimated to be located approximately 100 feet away from a section of the proposed 69 kV line, based on measurements using aerial photographs. Both construction and operational emissions from the Proposed Project have been shown to be less than the applicable SCAQMD thresholds.

Table 3.2.3-12 below presents the localized emissions during single pole construction activities that may potentially occur within 25 meters of receptors. It should be noted that since emissions resulting from single pole construction exceed the SCAQMD's screening LST thresholds, more detailed modeling was performed utilizing the district-approved SCREEN3 model.

TABLE 3.2.3-12. PROPOSED PROJECT CONSTRUCTION EMISSIONS/AIR DISTRICT LOCALIZED THRESHOLD COMPARISON – 25 METER RECEPTOR DISTANCE

Single Pole Construction	CO		NO ₂	PM ₁₀	PM _{2.5}
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	
Peak Day Localized Emissions	0.073	0.051	3.17E-03	7.68	7.40
Background Concentration	7	2.9	0.09	N/A	N/A
Total Concentration	7.073	2.951	0.09	7.68	7.40
LST Threshold	20	9	0.18	10.4	10.4
Significant Impact?	No	No	No	No	No

Note: PM₁₀ and PM_{2.5} concentrations are expressed in µg/m³. All others are expressed in ppm.

Table 3.2.3-13 below compares the Wilderness/Wildlife Substation construction emissions with the applicable SCAQMD mass rate localized significance threshold. Since the Proposed Project emissions do not exceed these highly conservative thresholds, more refined modeling is not required.

TABLE 3.2.3-13. PROPOSED PROJECT CONSTRUCTION EMISSIONS/AIR DISTRICT LOCALIZED THRESHOLD COMPARISON – 100 METER RECEPTOR DISTANCE

	Peak Daily Construction Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Wilderness/Wildlife Substation	32.94	12.12	28.63	6.83
SCAQMD Daily Localized Significance Thresholds (100 meters)	212	1,746	30	8
Exceed Threshold (Yes/No)?	No	No	No	No

Table 3.2.3-14 below compares the Proposed Project's operational maintenance emissions to the

applicable SCAQMD mass rate localized significance threshold.

TABLE 3.2.3-14. PROPOSED PROJECT OPERATIONAL EMISSIONS/AIR DISTRICT LOCALIZED THRESHOLD COMPARISON – 25 METER RECEPTOR DISTANCE

	Peak Daily Operational Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Operational Activity	0.01	0.02	0.19	0.12
SCAQMD Daily Localized Significance Thresholds (25 meters)	118	602	1	1
Exceed Threshold (Yes/No)?	No	No	No	No

The comparison of the peak daily construction emissions as well as the emissions associated with the Proposed Project's operation with the SCAQMD significance localized thresholds shows that the Proposed Project emissions are less than the applicable SCAQMD localized thresholds of significance. Therefore, short-term project construction and long-term operational maintenance emissions will not expose sensitive receptors to substantial pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. The Proposed Project does not propose land uses typically associated with emitting objectionable odors (i.e., wastewater treatment plants, chemical plants, composting operations, refineries, landfills, dairies). No odor sources would be created during Proposed Project operation. Additionally, the Proposed Project would be required to comply with SCAQMD Rule 402, which prevents occurrences of public nuisance air quality discharges.

Potential odor sources associated with the Proposed Project include construction equipment exhaust during construction activities. It is estimated that each transmission line and subtransmission line structure location will take one day to install before moving to the next location. These emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction. Odors associated with diesel exhaust would be minimized by requiring that idling of such equipment and vehicles be limited to no more than five minutes (CARB 2009). The use of temporary restroom facilities on-site (i.e., Port-A-Potties) is not likely to create an odor issue, as emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Additionally, the Proposed Project would be required to comply with SCAQMD Rule 402, which prevents occurrences of public nuisance air quality discharges. Recognizing the short-term duration and quantity of emissions from the Proposed Project, the Proposed Project will not expose substantial numbers of people to objectionable odors. Therefore, impacts from short-term construction odors are considered less than significant.

Greenhouse Gas Emissions

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project and alternatives would result in significant impacts to climate change as it relates to the following significance criteria:

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The Proposed Project is within the jurisdiction of the SCAQMD, which has developed interim guidance for determining significance of greenhouse

gas emissions on climate change. Almost 90 percent of GHG emissions are in the form of CO₂ (ARB 2007). Other GHG emissions such as CH₄, N₂O, HFC, PFC, and SF₆ are also tracked by State inventories such as the California GHG Emissions Inventory, but occur in much smaller quantities. Particularly for the purposes of this analysis, N₂O, HFC, PFC, and SF₆ have not been quantified since the Proposed Project will not emit those gases. This is because GHG emissions produced through construction activities and the operation of equipment are CO₂ and CH₄. Moreover, emission factors for diesel-powered equipment for these other gases listed above are not available and would not produce any measurable levels because these gases are not associated with fossil fuel combustion or any other Project construction or operational emissions. Additionally, although portions of the Proposed Project will be constructed on former agriculture-dairy areas and may result in releases of GHGs captured in the soil, these emissions (if any) would be negligible given the relatively small areas that will be disturbed during project construction. The global warming potential of CH₄ is 21 times that of CO₂. When quantifying GHG emissions, the different global warming potentials of GHG pollutants are usually taken into account by normalizing their rates to a CO₂-equivalent emission rate (CO₂e). As shown in Table 3.2.3-15 below, maximum annual emissions of CO₂e are ~~1,999.20~~1,999.20975.44 metric tons from construction equipment and employee commuting, and 7.11 metric tons for maintenance operations, which combined are below the applicable interim GHG significance threshold tier of 10,000 metric tons of CO₂e per year adopted by the SCAQMD (2011).

TABLE 3.2.3-15. SUMMARY OF GREENHOUSE GAS EMISSIONS DUE TO CONSTRUCTION EQUIPMENT, EMPLOYEE COMMUTING, AND MAINTENANCE OPERATIONS¹

Emission Source	Peak Year GHG Emissions (metric tons/year)		
	CO ₂	CH ₄	CO ₂ e ²
Construction Equipment/Employee Commuting	1,999.20 <u>1,999.20975.44</u>	0.12	1,999.20 <u>1,999.20975.44</u>
Maintenance Operations	7.1	0.003	7.11
SCAQMD Interim GHG Significance Threshold (Industrial Projects)			10,000
Exceeds Threshold (Yes/No)?			No

¹ Note: see footnote in Table 3.2.3-9 above.

² Carbon dioxide equivalents (CO₂e) includes a GWP of 1 for CO₂ and 21 for CH₄, which were obtained from Table 3-1 *Greenhouse Gas and Global Warming Potentials: Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Gas Industry* dated February 2004 (API 2004).

It should be noted that the indirect emissions associated with Proposed Project construction and employee commuting are short-term in duration, and the emissions resulting from long-term Proposed Project operation are well below the SCAQMD's Interim GHG Significance Threshold of 10,000 MT. Nonetheless, and although not required to reach a less than significant conclusion under this threshold, the City has required employee carpooling to further reduce these already insignificant GHG impacts (see Mitigation Measure AQ-3~~⇒~~). In operation, the Proposed Project would not attract new commuter or patron traffic. As a power line facility, the Proposed Project would not generate power or create a new source of power consumption. Although the Proposed Project will result in GHG emissions from indirect sources, such as those occurring through electricity generation and distribution losses, these emissions are considered to be *de minimis*, and quantification would be speculative due to the various renewable and non-renewable energy sources that will be distributed via the Proposed Project throughout its lifetime.

The comparison of the maximum annual GHG emissions for the total Proposed Project (all

phases combined) with the SCAQMD Interim GHG Significance Threshold shows that GHG emissions do not exceed the significance thresholds, and therefore the Proposed Project's impacts to climate change are less than significant. As shown in the table above, the Proposed Project's operational emissions would be only 7.11 metric tons per year, which amounts to less than 1% of SCAQMD's significance threshold.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. As previously discussed and shown in Table 3.2.3-15 above, the Proposed Project would not exceed the SCAQMD interim GHG significance threshold. The Proposed Project consists of the construction and operation of transmission and subtransmission lines, which are needed to serve the existing electricity needs of the City. Therefore, the Proposed Project is consistent with the growth projections in the City's General Plan 2025 and the County's General Plan 2008 and will not obstruct implementation of the AQMP.

The City's General Plan 2025 includes an Energy Conservation Objective which states that the City will "increase energy efficiency and conservation in an effort to reduce air pollution" (Riverside General Plan 2025, Pg AQ-34). Specific policies applicable to the Proposed Project include:

- Continue and expand use of renewable energy resources such as wind, solar, water, landfill gas, and geothermal sources.
- Continue and expand the creation of locally-based solar photovoltaic power stations in Riverside.

The Proposed Project is consistent with the applicable General Plan energy efficiency measures, as it will increase transmission capacity and enable the integration of future renewable energy sources into the existing grid. Once constructed, the Proposed Project would not consume energy (except for vehicles used for line patrols and other maintenance activities), but rather would provide energy, increasing the ability of the RPU service area to utilize renewable energy sources. In addition, the Proposed Project would eliminate the need for addition peak or base load internal generation.

The goals of the CEC's Strategic Transmission Investment Plan are to meet state greenhouse gas policy objectives through the interconnection and integration of renewable generation to the transmission grid while meeting traditional reliability and congestion management objectives. The Proposed Project will add a new source of transmission capacity and is consistent with the objectives of the Plan.

SB 375 seeks to reduce GHG emissions through the integration of planning processes for transportation, land-use, and housing. The Proposed Project will add a new source of transmission capacity and will not conflict with SB 375.

As discussed previously, the Proposed Project will not result in significant short-term or long-term GHG emissions, and thus will not conflict with the goals of AB 32. Thus, the Proposed Project's impacts to climate change are considered less than significant.

Significant Unavoidable Impacts

~~The portion of the SCAB within which the Proposed Project is located is designated as a non-attainment area for ozone and PM₁₀ under state standards, and as a non-attainment area for ozone, PM₁₀, and PM_{2.5} under federal standards. Therefore, significant unavoidable impacts would occur related to the construction phase of the Proposed Project and thus, a statement of overriding considerations will be required if the Proposed Project is approved.~~

The Proposed Project is in compliance with the AQMP and both short-term and long-term emissions are below all applicable SCAQMD established regional and localized thresholds of significance. However, for cumulative assessment purposes, the potential existence of nearby concurrent cumulative projects would add to these regional construction emission totals. While not all cumulative projects would occur at the same time as the Proposed Project, it can be assumed that one or more other projects will be in construction or will start operations and cause emissions that are cumulatively significant with those of the Proposed Project's construction. Therefore, the combined effect of construction emissions from the Proposed Project and other projects' construction and/or operating emissions would be cumulatively significant and unavoidable at various times during construction, even with application of Mitigation Measures described in Table 3.2.3-8. Therefore, a statement of overriding considerations will be required if the Proposed Project is approved.

References

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3.2.4 BIOLOGICAL RESOURCES

This section describes the biological resources within and adjacent to the Proposed Project area and evaluates the potential impacts to biological resources as a result of implementation of the RTRP. This section is based in part on surveys performed by POWER Engineers, Inc. (POWER) subcontractors between 2006 and 2010.

The Proposed Project is within western Riverside County, for which a Multi-Species Habitat Conservation Plan (MSHCP)/Natural Community Conservation Plan (NCCP) has been prepared and applicable permits issued. The MSHCP allows the MSHCP local permittees to receive take authorization under a Section 10 Incidental Take Permit from the U.S. Fish and Wildlife Service (USFWS) and an NCCP permit from the California Department of Fish and Game (CDFG). The MSHCP covers 146 species in Western Riverside County. The City of Riverside is a permittee of the MSHCP and is subject to its requirements as well as a member agency of the Western Riverside County Regional Conservation Authority (RCA), the joint powers authority that oversees MSHCP implementation. Likewise, areas that the Proposed Project also traverses include the County of Riverside, City of Norco and City of Jurupa Valley (incorporated July 2011). The County and Norco are permittees under the MSHCP and members of the RCA. The City of Jurupa Valley will be a permittee once the application is finalized and the MSHCP Implementing Agreement is amended and signed; this action is in process as of July 2011 (RCA 2011). In addition to the Proposed Project's potential to affect sensitive plant or wildlife species, the following analysis includes discussion specific to the MSHCP and compliance with this plan to address the Proposed Project's potential to affect any covered species under that Plan.

RPU has met with the RCA to discuss the Proposed Project and confirm its consistency with the MSHCP. In March 2010, RPU presented the Proposed Project and biological resources being evaluated to the RCA during a monthly meeting with representatives of USFWS and the CDFG in attendance. At this meeting and during a subsequent meeting with CDFG in October 2010, the completed biological resource surveys (2006 to 2010) were discussed and determined to be acceptable and representative of the evaluated study area (e.g., rare and endemic plant, focused small mammal, and western burrowing owl). The USFWS required focused surveys for the northern tie-in area of the 230 kV component to determine presence or absence of Delhi-Sands flower loving fly, a Covered Species under the MSHCP. As presented in the Biological Assessment, supplemental survey reports, and this section, the Proposed Project is not expected to affect this species. Additionally, the Proposed Project is not expected to directly affect any other federal listed or candidate species, or Critical Habitat. The Proposed Project has the potential to affect State protected western burrowing owl and several sensitive plant species. The Biological Assessment determined that the Proposed Project is not expected to result in a jeopardy determination of a listed species, the listing of a candidate or other species by State or federal action as a result of the Proposed Project, or impact to Critical Habitat. Identified impacts to Covered Species under the MSHCP will be mitigated through compliance with MSHCP requirements.

Methodology for Resource Inventory and Other Data Collection

The Proposed Project area's mixed setting of urban areas and open space currently supports both native and non-native plant communities, wildlife, and habitats, and protected and sensitive species. Biological resources data on wildlife and plant species as well as their habitats (including both terrestrial and aquatic habitats) were inventoried through searches of existing

datasets and through focused field efforts. Sensitive species with potential to occur within the Proposed Project area were identified through a search of the California Natural Diversity Data Base (CNDDDB 2007 - 2010~~1~~), and the MSHCP. Resource data were then mapped utilizing a geographic information system (GIS) and results of reconnaissance, focused wildlife, and focused rare and endemic plant surveys. Surveys identified biological resources within the study corridors including natural vegetation, water resources, and special-status species and communities. The data record search was conducted on a five-mile radius of the Proposed Project alignments. This distance is determined satisfactory based on the level of urbanization in the Proposed Project area. A Biological Technical Report (BTR) was prepared in June 2010 and was used in support of this analysis and is included within Volume II, Appendix B, of this DEIR. Some information presented in the BTR has been updated and revised as presented to provide a more complete assessment of potential impacts. Water resources are discussed in depth in Section 3.2.8, Hydrology and Water Resources.

Field surveys were conducted ~~and analysis provided by POWER~~ in 2006, 2007, and 2008~~;~~ (TRC/Essex ~~([2006, 2007]~~), Bloom Biological, Inc. ~~([2008]~~), and Harmsworth Associates ~~([2008]~~). Additionally, in 2006, a focused small mammal survey and trapping study was conducted for various Project alternative routes (Davenport 2006). POWER incorporated the results of field surveys in the analysis provided in the BTR. The BTR included analysis of evaluated study corridors that included previously considered and rejected potential routes. The BTR contains the biological assessment for the Proposed Project and is contained in Appendix B. The study corridors adjacent to the proposed transmission line centerline were identified as a series of short segments called “links” that were arranged in a final combination to create the Proposed Project route. For purposes of the BTR, “links” were defined as individual possible centerline segments between common points or “nodes.” Once a continuous Proposed Project route was identified, the term “links” was of limited value. For these purposes, the term “link” is a term used to break the Project alignment into manageable pieces for purposes of analysis and, thus, is not used to indicate a biological linkage.

Based on meetings with the RCA, USFWS, and CDFG during 2010, it was determined that the baseline 2006 to 2008 surveys are sufficient for evaluating the existing field conditions of the evaluated Proposed Project and alternatives~~;~~ at the time the data was presented. Accordingly, the CEQA baseline for all biological impacts is 2008 unless otherwise specified. Focused surveys for Delhi-Sands flower loving fly habitat were conducted in 2006~~;~~ ~~2007;~~ and 2007, with supplemental surveys conducted in 2010, and 2011 (the 2006 and 2007 baseline surveys apply to the proposed alignment except for the northern tie-in location for which the 2010/2011 surveys will be the baseline). During 2006 through 2007, Phase I and II surveys (CDFG, 1993 Guidelines and MSHCP) were conducted for western burrowing owl to create the baseline habitat map for this species. Accordingly, the baseline conditions year for determining impacts to burrowing owl is 2007. Additional presence/absence surveys (Phase II, Phase III) for western burrowing owl will be conducted closer to project construction start when the Proposed Project ~~is~~ has been submitted to RCA for review, because survey results are only valid for one calendar year.

A field review of the Santa Ana River crossing was conducted in March 2011 to assess tree species and heights.

Although CEQA Guidelines Section 15125 states that the baseline conditions are “normally” those that exist at the time the NOP is released (here, November 2009), CEQA permits a lead

agency to select a different baseline for analysis purposes if that baseline is supported by substantial evidence (e.g., *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* [2010] 190 Cal.App.4th 316). Indeed, “[e]nvironmental conditions may vary from year to year, and in some cases it is necessary to consider conditions over a range of time periods” (*San Joaquin Raptor v. County of Merced* [2007] 149 Cal.App.4th 645). Here, a number of biological surveys were conducted in 2006 and 2008. The RCA, with review by USFWS and CDFG, has determined that those data remain accurate for the purposes of assessing Proposed Project impacts (RCA meeting June 2010). Since they are the regulatory agencies with regard to sensitive species, their opinion constitutes substantial evidence supporting the City’s baseline determination (see CEQA Guidelines §§ 15086 [requiring lead agencies to consult with responsible and trustee agencies when preparing an EIR], 15386 [specifying that CDFG is a trustee agency concerning fish, wildlife, native plants, and other biological issues], 15384 [confirming that substantial evidence includes facts, reasonable assumptions based on fact, and expert opinion supports by facts]). Thus, the City’s determinations of the baseline conditions for determining biological impacts are fully supported by substantial evidence.

Field survey activities included documenting observed plant and animal species or their sign, mapping vegetation communities, and photo-documenting existing biological conditions for identified ~~Proposed~~ possible Project links. Study corridors were surveyed along a 150-meter (500-foot) wide area (250 feet on each side of Proposed Project ~~link~~ centerline) for MSHCP sensitive species and a 30-meter (100-foot) wide study corridor (50 feet on each side of proposed centerline) for vegetation communities. During the 2006 surveys, portions of the study corridors were surveyed using binoculars: specifically, areas that consisted of dense or inaccessible riparian areas along the Santa Ana River, extend through human encampments, or extend onto property not authorized for entry. These areas were resurveyed on foot in 2008 during focused surveys for species that have potential to occur within the Proposed Project area, as required by the MSHCP. During the March 2010 meeting, RCA, USFWS, and CDFG ~~agreed with the~~ were presented information from RPU evaluation that Proposed Project area conditions had not substantially changed from those occurring during the 2006 through 2008 surveys, and that these surveys were satisfactory for analysis requirements of the Proposed Project. No resurvey was ~~required or requested to be~~ conducted due to age of data. The Proposed Project area comprises primarily urban land use with discreet areas of open space supporting native and non-native habitat. The conditions present during the surveys conducted for the Proposed Project and alternatives evaluated in the biological resource assessment and this impact analysis are consistent with those present at the time the Proposed Project was reviewed with RCA in 2010 and exist as of June, 2011. There ~~has~~ have been ~~no~~ minor, less than significant changes to types or acreage of habitat present within the survey area that would result in an increase in type or number of potentially occurring species.

In November, 2011, field conditions within the Riverside Water Quality Control Plant were confirmed to be consistent with those evaluated in 2006 with respect to potential to support sensitive species. Davenport’s biologist reviewed this section of the alignment in 2006 (Overstreet personal communication 2011) and determined it was actively disturbed and unlikely to support sensitive or protected small mammals. The site is still generally disturbed but with some native plants and vegetation coverage that may not have been present in 2006. Because of the location with the active water treatment facility patchwork habitat fragmentation within the riverbed, it is unlikely that a sensitive small mammal species would have established in this section of the alignment since 2006.

Vegetation Communities and Cover Types

The vegetation mapping was conducted in the field using aerial photographs and topographic maps. Focused surveys were conducted during summer and autumn 2006 and spring 2008 to delineate vegetative communities and identify sensitive plant habitats and species. Based on these field surveys, revisions to the GIS vegetation community layer were made. These revisions included additional vegetation community types that were delineated and mapped to adequately describe and depict the communities observed in the study corridors. Habitat definitions follow those defined in the MSHCP, but also include other references as noted. For the 230 kV portion of the Proposed Project, vegetation communities and land cover types were mapped to a 2,000-foot wide vegetation study corridor. For the 69 kV portion of the Proposed Project, communities and land cover types were mapped to a 1,000-foot wide vegetation study corridor. These corridors address a satisfactory zone of influence and potential edge effect, and acknowledge the 69 kV portion is routed through predominantly urban areas along existing paved roads.

Special-Status Species

~~Sensitive~~ Special-status species, as defined for this report, include those plant and animal species listed as threatened, endangered, candidate, or proposed under the Federal Endangered Species Act (ESA), or under the California Endangered Species Act (CESA), or those species covered by the MSHCP. ~~Special-status~~ Sensitive species may also include species designated as a California Special Plant, plants listed as Rare, Threatened, or Endangered by the California Native Plant Society (CNPS), and animals listed as California Species of Special Concern, or California Special Animal.

The CNDDDB records for the Corona, Fontana, Guasti, Riverside East, Riverside West, and San Bernardino United States Geological Survey (USGS) 7.5 minute quadrangles (State Plane) were reviewed for information on sensitive animal and plant species occurrences that have been documented in the vicinity of the study area. ~~Special-status species with known or historic ranges that overlap the study corridors were determined to have a low, moderate, or high potential to occur, or known presence.~~ Additionally, the USFWS, CDFG, and available survey records (conducted by others but not published or publicly available) were reviewed for certain special-status species that may not be currently reflected by the data available on the CNDDDB. Special-status species with known or historic ranges that overlap the study corridors were determined to have a low, moderate, or high potential to occur, or known presence. A review of the CNDDDB in 2010 confirmed that evaluated species for the Proposed Project are accurate for those having a potential to occur based on recorded sightings, historic and current range, and affected habitat. A subsequent review of the 2011 CNDDDB did not result in a change of number or diversity of species but included several additional recorded observations. This analysis includes relevant species occurrences recorded in the CNDDDB but for reference purposes will only cite CNDDDB ~~2010 as the most recent data reviewed. More recent postings do not change the impact determinations of this report because they do not include previously undetected sensitive species or populations that are not evaluated in this report.~~ 2011 as the most recent data reviewed.

Site-specific protocol surveys for listed wildlife species and focused surveys for special-status plant species were conducted during appropriate periods. Seasonal rainfall during 2007 was below average and 2008 was average. These conditions are acceptable for analysis and determination of potential to affect. Rare and endemic sensitive plant surveys were conducted

during appropriate times during expected blooming periods. The two-year survey period is required to address the potential of below-average rainfall years and provide better survey data.

Critical Habitat

On December 14, 2010, the USFWS listed Critical Habitat for the Santa Ana sucker (50 CFR Part 17, Docket No. FWS-R8-ES-2009-0072; 92210-117-000-B4), which includes land within the MSHCP boundaries. The Proposed Project will parallel a portion and include an aerial crossing of mapped Santa Ana sucker Critical Habitat as identified in USFWS Critical Habitat Subunit 1B of the Santa Ana River. ~~However, The Proposed Project would also include an access road along the northern boundary of the Critical Habitat but within landscape habitat associated with the Goose Creek Golf Club.~~ The Proposed Project's ground disturbance footprint is not within the Critical Habitat as mapped. Therefore, the Proposed Project would not directly or indirectly significantly affect the water quality or aquatic conditions which are specific characteristics of this Critical Habitat and thus will not affect Santa Ana sucker Critical Habitat.

The Proposed Project will parallel a portion and include an aerial crossing of mapped least Bell's vireo Critical Habitat (02 February 1994; 59 CFR 4845 4867). This same area is also designated as Critical Habitat for Santa Ana sucker. The Proposed Project would parallel this Critical Habitat along the southern bank of the Santa Ana River and include an aerial crossing of it. ~~However, The Proposed Project would also include an access road along the northern boundary of the Critical Habitat but within landscape habitat associated with the Goose Creek Golf Club.~~ The Proposed Project would not directly or indirectly affect the riparian vegetation and native mid- and lower-canopy coverage that is a specific characteristic of this Critical Habitat and thus the Proposed Project will not affect least Bell's vireo Critical Habitat.

Implementation of a SWPPP for the Proposed Project (MM GEO-02, MM HAZ-03, and EPE HYDRO-03) would ensure that runoff, erosion, and sedimentation would not indirectly affect Critical Habitat for either Santa Ana Sucker or least Bell's vireo. See Section 3.2.8, Hydrology and Water Resources, for details of SWPPP implementation as part of the Proposed Project.

Environmental Setting

General

The natural topography of the general area of the Proposed Project is valley lowland intersected by rolling hills bound to the north and east by mountain ranges. Elevations range from 680 to 1,900 feet above mean sea level (MSL). The Proposed Project area is characterized by urban and suburban development intermixed with agriculture and undeveloped lands. Most of the Proposed Project area is urban. The only remaining large areas of native habitats occur along the Santa Ana River and in the Jurupa Mountains. Proposed Project corridors ~~engage overlap~~ the Santa Ana River corridor in several locations

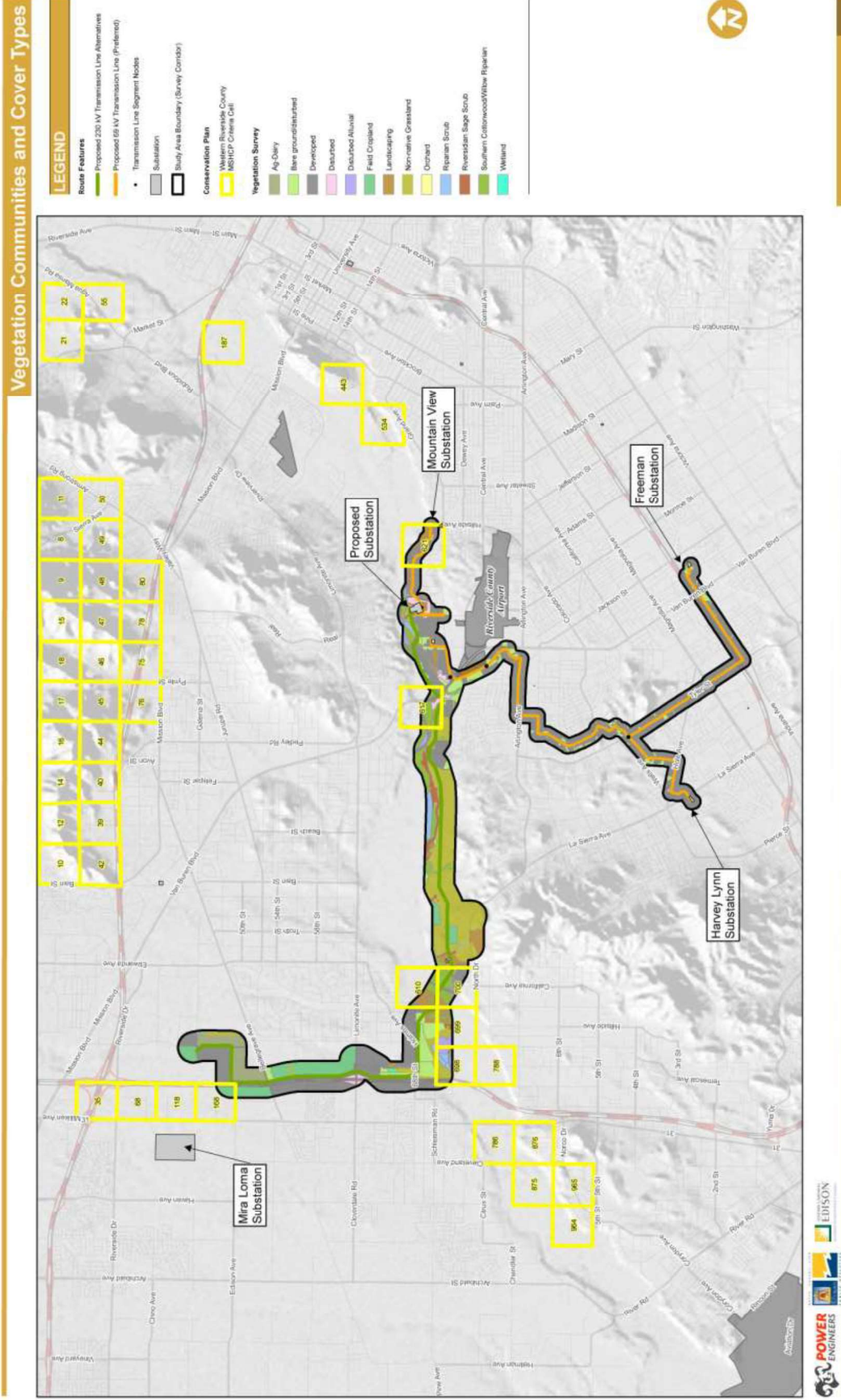
Continuous and periodically rapid population growth in the Proposed Project area has resulted in increased development with accompanying changes in land use. The Proposed Project area during most of the 20th Century was primarily rural with agricultural land use. Since the latter part of last century to the present, the area has been urbanized with extensive residential, commercial, and light industrial land conversion. The Proposed Project area supports minimal undisturbed native habitat.

The 2006 and 2008 botanical surveys identified and mapped vegetation communities or cover types within the Proposed Project area study corridors. These surveys addressed existing Proposed Project field conditions and no significant changes occurred to potential occurring sensitive plant species or the survey limits during 2009 to warrant additional surveys. Plant community nomenclature of habitat observed within the Survey area follows that of *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986) and *A Manual of California Vegetation* (Sawyer and Keeler-Wolf, 1995). This information was cross-referenced with other sources, including USGS 7.5 minute quadrangle maps, GIS data, California Gap-Analysis Program, and review of reports of prior surveys conducted in the general area. Vegetation communities and cover types observed in the study corridors are described in general for the study corridor.

In addition to urban covered areas, 11 vegetation communities were identified in the study area. Seven are considered sensitive or are potential habitat for sensitive plant species: Alluvial Fan Sage Scrub, Disturbed Alluvial Fan Sage Scrub, Mixed Open Woodland/Disturbed, Riparian Forest, Riparian Scrub, Riversidian Sage Scrub, and Southern Cottonwood - Willow Riparian Forest. These communities are contiguous in sections of some corridors; in others, the communities are highly fragmented, disturbed, or degraded. The identified vegetation communities and cover types are discussed below and identified on Figure 3.2.4-1. Additional areas of interest for biological resources are also described.

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FIGURE 3.2.4-1. VEGETATION COMMUNITIES AND COVER TYPES (REVISED)



RIVERSIDE TRANSMISSION RELIABILITY PROJECT



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Vegetation Communities and Cover Types

Agriculture-Dairy

Agriculture-Dairy land is generally defined as land used primarily for production of dairy products. These areas tend to be bare of all vegetation and constantly disturbed from the activity of cattle. Agriculture-dairy areas are found along the northwestern portions of the study area.

Alluvial Fan Sage Scrub

Alluvial Fan Sage Scrub vegetation communities occur on alluvial outwash fans. Alluvial Fan Sage Scrub communities are generally associated with infrequently scoured areas on floodplains and outwash fans. It is considered to be a rare plant community that is highly fragmented due to urbanization and the extensive alteration of natural stream hydrology in Southern California (Smith, 1980). These plant communities are composed of a variety of evergreen woody and drought-deciduous shrubs, with a significant component of larger evergreen shrubs typically found in chaparral (Smith, 1980), and are adapted to survival in the presence of intense periodic flooding.

Scalebroom (*Lepidospartum squamatum*) is considered to be an indicator species of alluvial scrubs, and is usually described as a dominant or subdominant shrub in alluvial community descriptions, including the Scalebroom Series of Sawyer and Keeler-Wolf (1995) and the *Lepidospartum-Eriodictyon-Yucca* association described by Kirkpatrick and Hutchinson (1977). Alluvial scrub occurs on alluvial deposits along the Santa Ana River in the eastern portion of the study area. This community is dominated by scalebroom, white sage (*Salvia apiana*), California buckwheat (*Eriogonum* sp.), California croton (*Croton californicus*), tarragon (*Artemisia dracunculus*), yerba santa (*Eriodictyon* spp.), and mule fat (*Baccharis salicifolia*).

Developed (Urbanized)

Developed land includes roadways, parking lots, vacant lots, residences, commercial buildings, and other private and public infrastructure. No native habitat exists within these developed areas, although there may ornamental landscaping in some of these areas within the study area, and ornamental landscaping may also include native plant species.

Disturbed and Bare Ground

Disturbed areas, also described as Bare Ground/Disturbed, are usually composed of ruderal vegetation typical of areas where the native vegetation has been substantially altered by residential development, grazing, public infrastructure, or other land-clearing activities, such as grading. Disturbed habitat is present in portions of the study area, mostly adjacent to developed areas, and varies from areas dominated by non-native grasses and weeds to bare/mowed ground. Typical non-native plant species observed within this community included castor bean (*Ricinus communis*), cheeseweed (*Malva parvifolia*), fiddleneck (*Amsinckia menziesii*), filaree (*Erodium* sp.), mustard (*Brassica* sp.), sowthistle (*Sonchus oleraceus*), wild radish (*Raphanus sativus*), and non-native, annual grasses, including foxtail barley (*Hordeum murinum*), ripgut grass (*Bromus diandrus*), and wild oats (*Avena* spp.). Shrub and tree species include eucalyptus (*Eucalyptus* sp.) and Peruvian pepper tree (*Schinus molle*). Scattered native species were occasionally observed within disturbed areas that are generally subjected to less frequent disturbance than areas dominated by ruderal species. The majority of disturbed areas on undeveloped properties within the study area are seasonally mowed or disked.

Disturbed Alluvial Fan Sage Scrub

Disturbed alluvial fan sage scrub habitat occurs along the entire length of the Santa Ana River within the study area, and represents areas that have been disturbed by flooding events and changes in the river channel. These habitats are currently dominated by weedy species such as giant reed, horehound (*Marrubium vulgare*), mustards (*Brassica nigra*, *Hirschfeldia incana*, *Sisymbrium* spp.), tree tobacco (*Nicotiana glauca*), and wild radish. Disturbed alluvial fan sage scrub communities within the study area are intergraded with riparian scrub and southern cottonwood/willow riparian forest.

Field Cropland (Agriculture)

Field cropland is generally defined as land used primarily for production of food and fiber. Croplands within the study area appear to be irrigated and primarily used to grow alfalfa. Croplands occur mainly in the western portions of the study area.

Landscaping

Landscaping consists of introduced trees, shrubs, flowers, and turf grass, and occurs primarily in residential or developed areas in greenbelts, parks, and horticultural plantings throughout the study area. Ornamental landscaping vegetation is associated with developed residential, golf courses, and public areas and generally consists of non-native species, including pine (*Pinus* spp.), Brazilian pepper tree (*Schinus terebinthifolius*), eucalyptus (*Eucalyptus* spp.), myoporum (*Myoporum laetum*), melaleuca (*Melaleuca* spp.), flowering pear (*Pyrus* spp.), Chinese elm (*Ulmus parvifolia*), ~~and~~ weeping willow (*Salix babylonica*), and non-native grasses and turf. Native species are sometimes included and maintained as ornamentals.

Non-native Grasslands

Non-native annual grassland is an upland habitat that consists of a dense-to-sparse cover of introduced Mediterranean annual grasses. Non-native grasslands in California are characterized by the dominance of naturalized non-native annual grasses from Mediterranean regions outside of California. The most common plant species observed within non-native grasslands in the Proposed Project area included ripgut grass, barley (*Hordeum* sp.), and wild oats (*Avena* spp.). Associated forbs include filaree (*Erodium* spp.), mustard, sowthistle (*Sonchus* spp.), and wild radish. Most of these species grow to less than one meter in height. This type of grassland can include native perennial grasses and a diverse assemblage of native forbs. Annual grassland within the survey area is dominated almost completely by non-native grasses and forbs. This community matches the description of California annual grassland series (Sawyer and Keeler-Wolf, 1995) and non-native grassland (Holland, 1986). Non-native annual grasslands are found throughout the survey area.

Riparian Scrub

Patches of riparian scrub occur along the central portion of the Santa Ana River. This community is dominated by shrubs such as mule fat, arrowweed (*Pluchea sericea*), Mexican elderberry, Fremont's cottonwood, narrow-leaved willow (*Salix exigua*), arroyo willow (*Salix lasiolepis*), and tamarisk (*Tamarix* sp.). Other present shrub species include tarragon, Emory's baccharis (*Baccharis emoryi*), and California rose (*Rosa californica*). The Santa Ana River riparian corridor riparian scrub is most likely a stage of succession in the development of riparian forest or southern cottonwood/willow riparian forest. Riparian scrub within the study area varies from open with an herbaceous understory or bare ground to dense with sparse understory. Understory species observed include mugwort (*Artemisia douglasiana*), willow herb (*Epilobium ciliatum*), broad-leaved peppergrass (*Lepidium latifolium*), California loosestrife (*Lythrum californicum*),

white sweetclover (*Melilotus alba*), scarlet monkeyflower (*Mimulus cardinalis*), seep monkeyflower (*Mimulus guttatus*), California blackberry (*Rubus ursinus*), stinging nettle (*Urtica dioica*), and cocklebur (*Xanthium strumarium*). In some areas, desert wild grape (*Vitis girdiana*) forms thick tangles and has overgrown the shrub and tree species.

Riversidian Sage Scrub

The dominant sage scrub community type in the study area is Riversidian sage scrub. This is a very xeric expression of coastal sage scrub, and is typically open and dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and brome grasses (*Bromus* spp.), with each of these three main groups attaining approximately 20% cover. Other species observed in this community included brittle-bush (*Encelia farinosa*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), California encelia (*Encelia californica*), Mexican elderberry, boxthorn (*Lycium* sp.), and prickly pear (*Opuntia littoralis*). This community occurs on lower slopes throughout the area, including the Jurupa Mountains, Pedley Hills, Mount Rubidoux, and the extreme northeast corner of the study area.

Southern Cottonwood - Willow Riparian Forest

Southern cottonwood - willow riparian forest is open, broadleaved, winter deciduous riparian forest dominated by Fremont's cottonwood and several species of willow trees. The canopy consists of Fremont's cottonwood, black willow (*Salix gooddingii*), and California sycamore (*Platanus racemosa*). The understory is usually dominated by shrubby species such as sandbar willow, arroyo willow, tamarisk, and mule fat, along perennially wet stream reaches of the Transverse and Peninsular ranges (Holland, 1986). The vegetation in this community matches the description, and included giant reed. Southern cottonwood - willow riparian forest occurs along the entire length of the Santa Ana River riparian corridor within the study area.

Other Areas of Interest for Biological Resources

Species-specific Critical Habitat and regional wildlife movement corridors also occur within the Proposed Project area. Critical Habitat is determined by the USFWS pursuant to the Federal Endangered Species Act (ESA) requirements and is defined as 1) specific areas occupied by a species at the time of listing under the ESA on which are found physical or biological features essential to the conservation of the species, and which may require special management considerations or protection; or 2) areas not occupied by the species at the time of listing that are essential for the conservation of the species. Regional Wildlife Movement Corridors provide geographic passageways by which wildlife can move between areas of core habitat, as identified by the MSHCP.

Critical Habitat

In the Proposed Project area, Santa Ana sucker Critical Habitat extends along the Santa Ana River from Mill Creek Canyon and City Creek in the San Bernardino Mountains to Prado Dam, southwest of the Proposed Project area. The Proposed Project ground disturbance footprint is not within this Critical Habitat boundary. Therefore, the Proposed Project would not directly or indirectly significantly affect the water quality or aquatic conditions that are specific characteristics of this Critical Habitat.

Within the Proposed Project area, least Bell's vireo critical habitat occurs along the Santa Ana River extending from approximately two miles north of the proposed Wilderness/Wildlife Substations downstream to Prado Dam. The Proposed Project would parallel least Bell's vireo

Critical Habitat along the southern bank of the Santa Ana River but would only include an aerial crossing of the habitat. The Proposed Project would therefore not directly or indirectly affect the riparian vegetation and native mid- to low-canopy coverage that is a specific characteristic of this Critical Habitat.

The Proposed Project is determined to not affect Critical Habitat because of the distance from the habitat, and the only crossing is an aerial span with no ground disturbance.

The proposed access road to proposed LST site on the north side of the Santa Ana River would be constructed through a fallow field (former dairy land) along the west side of Goose Creek Golf Club and continue along the southern boundary of the golf course to the tower. The southern element of the road would be constructed adjacent to but not within the designated Critical Habitat. Additionally, there is an earthen berm that exists and would therefore parallel the proposed road to provide an additional barrier between the access road and the primary use areas of the designated Critical Habitat.

The RTRP area does not impact any other designated Critical Habitat.

Regional Wildlife Movement Corridors

The Santa Ana River transects the Proposed Project area. Portions of the Proposed Project's transmission line cross or are adjacent to this wildlife corridor. Wildlife movement corridors are vegetated linear pathways that connect areas of open lands used by wildlife to move or migrate between foraging and breeding areas. Corridors may be bordered by urbanized lands, disturbed ruderal habitat, agricultural lands, native habitat, or a combination. Wildlife movement corridors are considered to be specific biological resources meant to facilitate wildlife movement between forage or refuge areas, prevent genetic isolation of a population, and promote species recruitment to maintain a healthy population and gene pool. The Riverside MSHCP defines the Santa Ana River as a critical wildlife movement corridor and defines it as Core Area A for management description. It provides a primary movement corridor for terrestrial species from eastern areas to downstream habitat associated with Prado Dam Reservoir and northern and eastern Orange County open space. Urbanization in the upland areas constrains wildlife movement along the riverbed and relative associated open space throughout most of the City of Riverside within the Proposed Project footprint.

Special-status wildlife species associated with the Santa Ana River corridor include nesting least Bell's vireo, migratory southwestern willow flycatcher, and, potentially, yellow-billed cuckoo. There are numerous resident wildlife and migratory bird species also associated with this corridor. ~~The defined low flow river limits, however, are not part of the study area because~~ The Proposed Project will entirely span the river channel but not impact it, as explained in detail below, and thus is not expected to directly affect this resource as a wildlife movement corridor.

230 kV Transmission Line

Vegetation and land cover types as well as their areas within the study corridor are summarized in Table 3.2.4-1. The area consists primarily of urban or disturbed cover types. The limited native vegetation communities that occur within the study area provide suitable habitat for a number of special-status plant and wildlife species. For this DEIR, a sensitive species was considered a potential inhabitant of the study area if its known geographical distribution encompasses part of the RTRP site, or if its distribution was located near the site and general

habitat requirements of the species were present (e.g., foraging habitat, nesting or roosting, specific soil type, permanent water source). The Proposed Project design includes an aerial span of the Santa Ana River channel. Towers, construction footprints, and pull and tension sites would be placed on the north and south upper banks outside of the Critical Habitat limits. Work would be completed using helicopters for the initial stringing, followed by pulling and tensioning equipment located in the upland areas to complete the conductor installation. Based on the construction description, the Proposed Project would not affect the bed or banks and supported vegetation or aquatic resources of the Santa Ana River channel. The following discussion recognizes sensitive species that may occur within this resource, but these species are expected to be avoided because of the aerial span and therefore will be identified as “no effect.”

Based on vegetation present and low flow channel limits as of early 2011, it is not expected that tree species within the Santa Ana Channel crossing would establish and mature to a point that would cause a line clearance conflict during operation of the Proposed Project. Therefore, since the potential for this condition is low, no impact is expected during operation of the Proposed Project.

TABLE 3.2.4-1. VEGETATION AND LAND COVER CATEGORIES WITHIN 2,000-FOOT STUDY CORRIDORS FOR 230 kV PORTION OF PROPOSED PROJECT (I-15 ROUTE)

Vegetation or Land Cover Type	Acres	Percentage
Agriculture-Dairy	136.68	5.6%
Bare ground/disturbed	484.2170.9	7.50%
Developed (Urbanized)	788.4714.2	32.229.4%
Disturbed	53.550.0	2.21%
Disturbed Alluvial	4523.6	1.06%
Agriculture-Field Cropland	272276.8	11.24%
Landscaping	424.6119.3	5.44.9%
Non-native Grassland	545.5546.3	22.35%
Riparian Scrub	36.540.6	1.57%
Riversidian Sage Scrub	58.773.8	2.43.0%
Southern Cottonwood/Willow Riparian	225.6271.7	9.11.2%
Wetland	2.9	0.1%
Totals	24442426.8	100.0%

Sensitive Plant Species

Sensitive plant species identified for the Proposed Project area are ~~summarized~~ included in the list of special-status plants found in Table 3.2.4-2. Refer to the Biological Resources technical report for more detail.

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TABLE 3.2.2-2. POTENTIAL FOR OCCURRENCE OF SPECIAL-STATUS PLANT SPECIES, PROPOSED PROJECT

Species	Listing Status			Associated Links**							Species Habitat and Occurrence Summary
	Federal	State	CNPS	Ax	D	I	Ja	Jb	Jd		
Brand's phacelia (<i>Phacelia stellaris</i> *)	FC	None	1B.1	L	M	L	A	A	A	Species known to occur in coastal dunes, open areas, and coastal sage scrub. The blooming period for Brand's phacelia is March through June. This species has been documented by the University of California, Riverside (UCR) in the vicinity of the study corridor near the Santa Ana River. Species is covered under the MSHCP. The study corridors only support limited disturbed habitat for this species. This species is determined to have a low potential to occur in the study corridor. Based on Proposed Project design, the species is not expected to be directly or indirectly affected.	
Bristly sedge (<i>Carex comosa</i>)	None	None	2.1	L	L	A	L	A	A	Species is found in coastal prairies, marshes, swamps, lake margins, and valley and foothill grasslands. Blooming period for this species is May through September. The study corridors only support limited disturbed habitat for this species. This species is determined to have a low potential to occur in the study corridor. Based on Proposed Project design, the species is not expected to be directly or indirectly affected.	
Chaparral sand-verbena (<i>Abronia villosa</i> var. <i>aurita</i>)	None	None	1B.1	L	L	L	L	L	L	Species is found in sand verbena is January through August. The study corridor supports suitable habitat in the eastern limits and recent records for the species are present in the vicinity. This species is determined to have a low potential to occur within the study corridors.	
Gambel's water cress (<i>Rorippa gambelii</i>)	FE	ST	1B.1	L	L	L	M	A	A	Species is known to occupy marshes, streambanks, and lake margins. Blooming period is April through September. Suitable habitat occurs along the Santa Ana River within the study corridors. This species is determined to have a moderate potential to occur in the study corridors. Based on Proposed Project design, the species is not expected to be directly or indirectly affected.	
Los Angeles sunflower (<i>Helianthus nuttallii</i> ssp. <i>parishii</i>)	None	None	1A	L	L	A	L	A	A	Species occurs in coastal salt and freshwater marshes and swamps. Blooming period for Los Angeles sunflower is from August to October. Species is presumed extinct.	
Marsh sandwort (<i>Arenaria paludicola</i>)	FE	SE	1B.1	L	L	L	L	A	A	Species occupies boggy meadows, freshwater marshes, and swamps. Its habit is erect (25 cm to 90 cm tall), and is often supported by surrounding vegetation. Blooming period for marsh sandwort is May to August. The study corridors do not support suitable native undisturbed habitat, so it is determined that this species has a low potential to occur within the study corridors. Based on Proposed Project design, the species will not be expected to be directly or indirectly affected.	
Mesa horkelia (<i>Horkelia cuneata</i> ssp. <i>puberula</i>)	None	None	1B.1	L	L	L	A	A	A	Species occurs in chaparral, cismontane woodland, closed-cone coniferous forests, maritime chaparral, coastal scrub, and sandy or gravelly soils. The study corridors support marginally suitable habitat for this species. It is determined that this species has a low potential to occur within the study corridors. Based on Proposed Project design, the species is not expected to be directly or indirectly affected.	
Parish's desert-thorn (<i>Lycium parishii</i>)	None	None	2.3	L	L	L	A	A	A	Species occurs in coastal scrub, Sonoran desert scrub, sandy to rocky slopes, and canyons. Blooming period for this species is March through April. The study corridors support marginal habitat for this species, and it is determined that this species has a low potential to occur within the study corridors.	
Parish's gooseberry (<i>Ribes divaricatum</i> var. <i>parishii</i>)	None	None	1B.1	L	L	L	M	A	A	Species known to occupy riparian and wet woodlands. Limited suitable habitat occurs in the study corridors, and it is determined that this species has a low potential to occur within the study corridors. Based on Proposed Project design, the species is not expected to be directly or indirectly affected.	
Pary's spineflower (<i>Chorizanthe paryi</i> var. <i>paryi</i>)	None	None	3.2	L	L	L	M	A	A	Species occurs in chaparral, coastal scrub, and openings in sandy or rocky soils. Blooming period for this herb is January through April. Species is covered under the MSHCP. Based on the surveyed study corridor, it is determined that this species has a low potential for occurrence within the study corridors.	
Plummer's mariposa lily (<i>Calochortus plummerae</i>)	None	None	1B.2	M	M	M	M	M	L	Species occurs in chaparral, coastal scrub, woodland, lower montane coniferous forest, valley and foothill grassland, granitic rocky soils, and dry conditions. Blooming period for this species is May through July. Plummer's mariposa lily is covered under the MSHCP. Species has a moderate potential for occurrence within the study corridors.	
Pringle's monardella (<i>Monardella pringlei</i>)	None	None	1A	L	L	L	A	A	A	Historically, species occurred in coastal scrub in areas of sandy soil. Blooming period for this species is May through June. It is presumed extinct.	

Species	Listing Status			Associated Links**							Species Habitat and Occurrence Summary
	Federal	State	CNPS	Ax	D	I	Ja	Jb	Jd		
Rayless ragwort (<i>Senecio aphanactis</i>)	None	None	2.2	M	M	M	L	L	L	A	Species occurs in chaparral, cismontane woodland, coastal scrub, alkaline flats, and alkaline soils. Blooming period for this species is January through April. This species has a moderate potential for occurrence within the study corridors.
Robinson's peppergrass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	None	None	1B.2	M	M	M	A	A	A	A	Species occurs in chaparral, coastal scrub, and dry soils. Blooming period for this species is January through July. It is determined that this species has a moderate potential for occurrence within the study corridors.
Salt Spring checkerbloom (<i>Sidaacea neomexicana</i>)	None	None	2.2	L	L	L	A	A	A	A	Species known to occur in alkaline springs and marshes, coastal scrub, chaparral, and plays. Blooming period for salt spring checkerbloom is March to June. It is determined that this species has a low potential to occur in the study corridors. Based on Proposed Project design, the species is not expected to be directly or indirectly affected.
San Bernardino aster (<i>Symphoricarichum defoliatum</i>)	None	None	1B.2	M	M	M	M	L	L	L	Species occurs in cismontane woodlands, coastal scrub, lower montane coniferous forests, meadows and seeps, marshes and swamps, vernal mesic valley and foothill grasslands, near ditches, streams, and in disturbed areas. Blooming period for this species is July through November. It is determined that this species has a moderate potential for occurrence within the study corridors.
San Diego ambrosia (<i>Ambrosia pumila</i>)*	FE	None	1B.1	L	L	L	L	L	L	L	Species known to occur in chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, disturbed areas, and low, seasonally wet areas with alkaline soil. Blooming period for San Diego ambrosia is May through September. This species is believed to have been extirpated by development within the Proposed Project area, and it is determined that this species has a low potential to occur in the study corridors.
San Miguel savory (<i>Satureja chandleri</i>)*	None	None	1B.2	L	M	M	M	L	L	L	Species occurs in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. It is associated with gabbroic or metavolcanic soils. Blooming period for this species is June through September. It is determined that this species has a low potential for occurrence within the study corridors because suitable habitat is not present.
Santa Ana River woollystar (<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>)	FE	SE	1B.1	L	L	L	H	L	L	A	Species known to occur in chaparral and alluvial fan coastal scrub, gravelly riverbeds, or gravelly soils. The blooming period is June through September. Species is covered under the MSHCP. It is determined that this species has a high potential to occur within portions of the study corridors. Based on Proposed Project design of the aerial span for the Santa Ana River crossing, the species is not expected to be directly or indirectly affected because it is closely associated only with the soil and conditions within the riverbed alluvial deposits. The project will not affect this habitat although it is in the survey corridor.
Slender-horned spinneflower (<i>Dodecathema leptoceras</i>)	FE	SE	1B.1	L	L	L	M	A	A	A	Species known to occur in chaparral, cismontane woodland, alluvial fan coastal scrub, and sandy soils. Blooming period for this species is April through June. It is determined that this species has a moderate potential to occur within the study corridors. It was, however, not found during focused surveys.
Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>)	None	CSP	1B.1	M	M	M	M	M	M	M	Species occurs in chenopod scrub, meadows and seeps, riparian woodland, valley and foothill grassland, and alkaline soils. Blooming period for this species is April through September. Because of limited suitable habitat, it is determined that this species has a low potential for occurrence within the study corridors.

** Links are defined as short segments that comprise the Proposed Project and were used for the Biological Resource Technical Report and Survey Corridor descriptions. (POWER 2010)

P = Present
H = High potential for occurrence
M = Moderate potential for occurrence
L = Low potential for occurrence
A = Absent/none

* Also covered under the MSHCP
FE = Federal Endangered
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
CSP = California Special Plant

List 1A – Presumed Extinct in California
List 1B – Rare, threatened, or endangered in California and elsewhere
• 1B.1 – Seriously endangered in California
• 1B.2 – Fairly endangered in California
• 1B.3 – Not very endangered in California
List 2 – Rare, threatened, or endangered in California, but more common elsewhere
• 2.1 – Seriously endangered in California
• 2.2 – Fairly endangered in California
• 2.3 – Not very endangered in California
List 3 – More information required (Review List)
• 3.2 – Fairly endangered in California

California Department of Fish and Game
SE = State listed, endangered
SI = State listed, threatened
CSC = California species of special concern
CSP = California special plant

U.S. Fish and Wildlife Service
FE = Federally listed, endangered
FT = Federally listed, threatened

Sensitive Wildlife Species

Birds

Coastal California gnatcatcher: Coastal California gnatcatcher (*Poliioptila californica californica*) is a federal threatened (1993) and State species of concern, and is covered by the MSHCP. The coastal California gnatcatcher, a small gray songbird, is a resident of sage scrub-dominated plant communities from southern Ventura County southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties in California into Baja California, Mexico. Breeding season is from February through August, with the peak nesting activity occurring from mid-March through mid-May. This species is associated with coastal sage scrub and Riversidian sage scrub habitats. It is determined that this species has a moderate potential to occur in patches of sage scrub along the Santa Ana River and in the eastern limits of the study corridors. It is not known to be present within the surveyed Proposed Project corridors. No direct or indirect impacts are expected.

Least Bell's vireo: Least Bell's vireo (*Vireo bellii pusillus*) is a federal and State endangered species, and is covered by the MSHCP. Since its listing, least Bell's vireo has increased in the United States from 291 to 2,968 known territories. The population restoration has slowed over the last ten years due to growing human population and associated urbanization (USFWS 2006). Least Bell's vireo are typically 115-125 mm in length and the crown, nape, hindneck, and upper back are dull grayish brown (Brown 2005). In California, nest sites are occasionally found in the same shrub within one meter of the previous year's nest (Greaves 1987).

Least Bell's vireo generally arrives in southern California breeding grounds mid-March to early April, with males arriving in advance of females by several days. This species is an obligate riparian species during the breeding season (USFWS 1998). Habitat associated with this species is dense willow-dominated riparian along water or along dry parts of intermittent streams with lush understory vegetation, southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities.

USFWS Critical Habitat for the least Bell's vireo along the Santa Ana River extends from the San Bernardino Mountains down to Prado Basin (USFWS 1998). The CNDDDB reported sightings along the Santa Ana River and 0.5 mile east and west of Van Buren Boulevard overcrossing. Based on Proposed Project 2007 and 2008 focused survey data, this species is determined to be present within the study corridors along the Santa Ana River (TRC [Bloom], 2007/ POWER [Bloom] 2008). Focused surveys conducted in spring and summer 2008 located an estimated 95 pairs of least Bell's vireos in or adjacent to the Proposed Project study corridors. Most of these were sighted immediately west or north of the Pedley Substation. Other vireo specimens were sighted in the river corridor north of the proposed I-15 230 kV route and both west and east of the proposed 230 kV substation. It is determined that this species is present within the Proposed Project area, occupying forage and breeding habitat within the established vegetation in the Santa Ana River channel. Because the Proposed Project will not affect Santa Ana River channel vegetation, it is not expected to directly affect this species, but has the potential to result in temporary indirect impacts to this species. The Proposed Project alignment is situated at a higher elevation and set back from the river bluff to provide a buffer from the edge of the Critical Habitat. The distance varies along the Proposed Project length.

Southern California rufous-crowned sparrow: The Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) is a State species of concern and is covered by the MSHCP. The rufous-crowned sparrow is largely a resident species and occurs in central California, north central Arizona, southwestern New Mexico, southeastern Colorado, northwestern and central Oklahoma, south discontinuously to southern Baja, California and Mexico. This species is often found in areas of coastal sage scrub, sparse mixed chaparral, and relatively steep rocky hillsides with patches of shrubs and grass. It is determined that this species has a low potential for occurring within the study corridors.

Southwestern willow flycatcher: The southwestern willow flycatcher (*Empidonax traillii extimus*) is a federal and State endangered species and is covered by the MSHCP. This migratory bird is often associated with dense riparian habitats, usually shrubby, along rivers, streams, or other wetlands. Large numbers of willow flycatcher pass through southern California during spring and fall migration. It is difficult to differentiate between the endangered subspecies that breeds in southern California and the non-endangered subspecies (*E. t. brewsteri*) that breeds to the north in the Sierra Nevada and Cascade Mountain ranges. There is a period of overlapping occurrence in southern California riparian habitats for these two very similar-looking subspecies during spring and fall migrations.

The southwestern willow flycatcher is of particular importance because the habitat of this species is restricted to river corridors in the arid west; therefore, regional conservation planning efforts (e.g., MSHCP) attempt to protect habitats associated with this species. Suitable habitat for southwestern willow flycatcher is located along the Santa Ana River. The CNDDDB reported sightings along the Santa Ana River and 0.5 mile east and west of Van Buren Boulevard overcrossing. Based on Proposed Project 2007 focused survey data, this species is determined to be present within the study corridors along the Santa Ana River (TRC [Bloom], 2007). Focused surveys conducted in May and June of 2008 located three willow flycatchers, presumed migrant, two of which may have been the same individual. All sightings were outside of the Proposed Project corridor. Two occurred in the Santa Ana River west of the Pedley Substation. The other sighting was in the Santa Ana River northeast of the Pedley Substation (Bloom 2008). The study did not determine that any of these observed individuals established nests within the Proposed Project area of the Santa Ana River.

Because of the limited observations and the migrant characteristic of the observation, it is determined that the Proposed Project is not expected to directly affect this species. Construction activity may result in short-term indirect impact to this species should it occur as a migrant or if it should establish nesting territory.

Tricolored blackbird: The tricolored blackbird (*Agelaius tricolor*) is a State species of concern. This species nests in colonies and requires open water, preferably in emergent wetland, with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs, and forages in grassland and cropland habitats (MSHCP). This species has a moderate potential to occur in the Proposed Project area within the established vegetation in the Santa Ana River channel. The Proposed Project is not expected to directly affect this species, but has the potential to result in temporary indirect impacts to this species during the construction phase.

Western yellow-billed cuckoo: The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a federal candidate for listing, and a State endangered species and is covered by

the MSHCP. This species is often found in areas of riparian vegetation; however, this species prefers open woodlands with clearings and a dense shrub layer. Dense understory foliage appears to be an important factor in nest site selection, while cottonwood trees are an important foraging habitat in areas where this species has been studied.

In California, breeding is restricted to isolated sites in Sacramento, Amargosa, Kern, Santa Ana, and Colorado River valleys (Laymon and Halterman 1987). Suitable habitat was identified within the study area within the Santa Ana River channel. The study corridors support limited fragmented, disturbed habitat that is considered to be marginally suitable for this species. It is determined that this species has a low potential to occur within the Proposed Project area within the established vegetation in the Santa Ana River channel. The Proposed Project is not expected to directly affect this species, but has the potential to result in temporary indirect impacts to this species during the construction phase.

Western burrowing owl: The western burrowing owl (*Athene cunicularia hypugaea*) is a State species of concern and, as with most other bird species, is protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) and is covered by the MSHCP. The burrowing owl is a comparatively small owl (approximately 8-10 inches), distinguished by its long legs and burrow (ground) nesting behavior. The western burrowing owl is semi-diurnal in that it is active in early morning and evening hours and will commonly perch during daylight hours at the entrance to its burrow or on a shorter post or perch. This species feeds primarily on insects and crustaceans, but will prey upon small birds and small mammals (Thomsen 1971). Burrowing owls nest in single pairs and small colonies. It utilizes burrows (underground holes) created by other burrowing mammals (e.g., ground squirrels) and will use open-ended pipes, culverts, and rock debris piles with suitable cavities. It does not excavate its own burrow.

Potential and occupied burrowing owl habitat exists within the Proposed Project corridor. Habitat utilized by this species includes, but is not limited to, native and non-native grasslands, fallow fields, washes, arroyos, areas of low-density cover, vacant lots, and road embankments. Burrowing owls were observed at multiple locations within the study corridor (TRC 2006). There is a potential for this species to nest and winter within the study corridor. It is determined that this species is present within the study corridors. Based on Proposed Project design, potential nest burrows identified during preconstruction surveys will be avoided. The Proposed Project is expected to result in potential temporary impact to this species during construction, but is not expected to result in direct impact. Minimal occupied foraging or breeding habitat will be permanently adversely affected by Proposed Project implementation.

Yellow-breasted chat: The yellow-breasted chat (*Icteria virens longicauda*) is a State species of concern and is covered by the MSHCP. The yellow-breasted chat utilizes riparian habitat with low, dense thickets of willows, blackberry, and wild grape near watercourses. It typically nests within ten feet of the ground. Suitable habitat occurs along ~~links associated with~~ the Santa Ana River within the study corridors. It is determined that this species has a moderate potential to occur within the Proposed Project area within the established vegetation in the Santa Ana River channel. The Proposed Project is not expected to directly affect this species. During construction, the Proposed Project has the potential to result in temporary indirect impacts to this species.

Mammals

American badger: The American badger (*Taxidea taxus*) is a State species of concern. Habitat utilized by this species includes grasslands, savanna, and mountain meadows. The American badger requires open, uncultivated ground, and preys on burrowing species. It is determined that this species is absent in the study area. Any potential suitable habitat is fragmented and most adjacent areas are urbanized; no burrows or other sign was observed. The Proposed Project is not expected to directly or indirectly affect this species.

Los Angeles pocket mouse: The Los Angeles pocket mouse (LAPM) (*Perognathus longimembris brevinasus*) is a State species of concern, and covered by the MSHCP. The LAPM is one of the two *P. longimembris* that occur on the coastal plain of southern California (i.e., south of the Transverse Range and west of the Peninsular Ranges). This species is associated with various sage scrub plant communities and has been observed in open grasslands, alluvial sage scrub, alluvial fan scrub, and within coastal sage scrub. The CNDDDB records one occurrence of LAPM upstream of the Proposed Project area within and adjacent to the Santa Ana River channel area. As part of initial RTRP siting studies, earlier evaluated links included areas to the east of the Proposed Project area. Focused small mammal surveys captured 60 individuals east of Riverside Avenue on both the north and south sides of the Santa Ana River. Approximately 408 acres of occupied habitat occurred within and immediately adjacent to the surveyed area. A large population of LAPM is located on the north side of the Santa Ana River between Riverside Avenue and the Rialto Channel. A smaller population is located south of the Santa Ana River between Riverside Avenue and the base of the La Loma Hills; however, it is thought that the populations are not isolated from each other and should be considered the same population (Davenport [TRC] 2006). The final evaluated set of links, now proposed for the Project, does not include suitable habitat for this species. Therefore, this species is absent from the Proposed Project area.

Northwestern San Diego pocket mouse: The northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) is a State species of concern and is covered by the MSHCP. Suitable habitat consists of sandy, herbaceous areas, rocks, or coarse gravel. Individual species were trapped during the 2006 focused surveys (Davenport [TRC] 2006) in the areas of earlier evaluated potential routes. However, the final evaluated set of links now proposed for the Project ~~do~~ does not include suitable habitat for this species. In 2011, the Riverside Water Quality Control Plant was surveyed and it was determined that the alignment along the south side of the Santa Ana River levee (i.e., north side of the facility) did not have suitable habitat for this species. This area supports suitable soils but is disturbed and not contiguous with other areas of suitable soil or habitat for this species. Therefore, this species is absent from the Proposed Project area evaluated. The Proposed Project is not expected to directly or indirectly affect this species.

San Bernardino kangaroo rat: The San Bernardino kangaroo rat (SBKR) (*Dipodomys merriami parvus*) is federal endangered species, a State species of special concern, and covered by the MSHCP. The SBKR is one of the two subspecies of *D. merriami* that occur on the coastal plain of southern California. This species is associated with alluvial sage scrub and adjacent plant communities where the soils are sandy. As of 2008, the CNDDDB recorded four observations of SBKR within 13 miles of the study corridor. During focused surveys in 2006, no SBKR were trapped or otherwise detected (Davenport [TRC] 2006). Because of the focused survey results, ~~change in evaluated~~ ultimate selection of links to the west of known occurrence records, and lack of suitable habitat, it is determined that this species is not present within the

Proposed Project area.

San Diego black-tailed jackrabbit: The San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) is a State species of concern and is covered by the MSHCP. Suitable habitat for this species consists of grasslands, rangelands, coastal sage scrub, and disturbed areas. San Diego black-tailed jackrabbit was observed ~~in only at the east end of the eastern limits of the~~ study corridors during focused small mammal surveys (Davenport [TRC] 2006). It is determined that this species is present within the study corridors, but is unlikely to find suitable habitat within the Proposed Project area, selected from the western portion of study corridors. The Proposed Project is not expected to directly or indirectly affect this species.

Southern grasshopper mouse: The southern grasshopper mouse (*Onychomys torridus ramona*) is a State species of concern. The southern grasshopper mouse utilizes desert areas, especially scrub with friable soil, with low to moderate shrub cover. Based on the focused small mammal survey results and lack of sufficient suitable habitat, it is determined that this species has a low potential to be present in the study corridors. The Proposed Project is not expected to directly or indirectly affect this species.

Stephen's' kangaroo rat: The Stephen's' kangaroo rat (*Dipodomys stephensi*) is a federal endangered species and is covered by the MSHCP and the ~~SKRHCP~~. Stephen's' kangaroo rat habitat conservation plan (SKRHCP). Habitat for this species consists of annual and perennial grasslands, coastal scrub, and sagebrush with sparse canopy cover. Based on the focused small mammal survey results and lack of sufficient suitable habitat, it is determined that this species has a low potential to be present in the study corridors. The Proposed Project is not expected to directly or indirectly affect this species.

Western mastiff bat: The western mastiff bat (*Eumops perotis californicus*) is a State species of concern. Habitat utilized by this species includes open, semi-arid to arid, coastal scrub, grasslands, chaparral, conifer, and deciduous woodlands. This species usually roosts in crevices in cliff faces, high buildings, ~~trees,~~ and tunnels. Suitable roost sites and forage habitat ~~is~~ are present ~~within links along~~ in the vicinity of the Santa Ana River, and it is determined that this species has a moderate potential to occur within the study corridors. The Proposed Project is not expected to directly affect this species. While the Proposed Project area supports existing aerial man-made elements, the new transmission line will provide a new aerial obstacle. This has the potential to result in an indirect impact to this species' foraging habitat. This is negligible, because the Proposed Project will also conserve open-space vegetated habitat within the right-of-way that will maintain areas of potential prey sources during the operation and maintenance phase. ~~This Direct and indirect impacts would have a determination of~~ be less than significant.

Western yellow bat: The western yellow bat (*Lasiurus xanthinus*) is a State species of concern. The western yellow bat tends to roost in trees, particularly palms. Typical habitat for this species consists of valley foothill riparian, desert riparian, desert wash, and palm oasis. Suitable tree roost sites and forage habitat ~~is~~ are present ~~within links~~ along the Santa Ana River. It is determined that this species has a moderate potential to occur within the study corridors. The Proposed Project is not expected to directly affect this species. While the Proposed Project area supports existing aerial man-made elements, the new transmission line will provide a new aerial obstacle. This has the potential to result in an indirect impact to this species' foraging habitat. This is negligible, because the Proposed Project will also conserve open-space vegetated habitat

within the right-of-way that will maintain areas of potential prey sources during the operation and maintenance phase. ~~This~~ Direct and indirect impacts would ~~have a determination of~~ be less than significant.

Reptiles

Northern red-diamond rattlesnake: The northern red-diamond rattlesnake (*Crotalus ~~eximius~~ ruber ruber*) is a Federal Special of Concern species (FSC) and a State species of concern and is covered by the MSHCP. This species is known to occur throughout western Riverside County. In the northern part of its range, the red diamond rattlesnake occupies environments from the coast to the desert slopes of the mountains, but avoids the lower desert flats and elevations above 5,000 feet. During warm weather, this species is most active at dusk and night. It is determined that this species has a moderate potential to occur within the study corridors. Through habitat conservation and avoidance and minimization efforts described below, potential direct and indirect impacts are expected to be less than significant.

Belding's orange-throated whiptail: The Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*) is a State species of concern, and is covered by the MSHCP. Habitat for this species includes coastal scrub, chaparral, valley-foothill hardwood, washes, and other sandy areas with loose soil and rocks. This species feeds on termites and other insects. It is determined that this species has a moderate potential to occur within the study corridors. Habitat conservation and avoidance and minimization efforts described below would reduce potential direct and indirect impacts to less than significant.

San Diego banded gecko: The San Diego banded gecko (*Coleonyx variegatus abbotti*) is a State species of concern and is covered by the MSHCP. Habitat for this species includes rocky areas, canyon walls, and sand dunes. Because of the level of urban disturbance and lack of sufficient suitable habitat, it is determined that this species is absent from the Proposed Project area. The Proposed Project is not expected to directly or indirectly affect this species.

Insects

Busck's gall moth: The Busck's gall moth (*Carolella busckana*) is a State species of concern. This species was last observed in 1906. Habitat type for this species is not clearly defined. Because of the level of urban disturbance, age of the last recorded sighting, and lack of sufficient native habitat, it is determined that this species is absent from the Proposed Project area. No impacts are expected.

Cuckoo wasp: The cuckoo wasp (*Ceratochrysis longimala*) is a State species of concern. This species was last observed in the Proposed Project area in 1915. The cuckoo wasp species prefers chaparral and scrub habitat. Because of the level of urban disturbance, age of the last recorded sighting, and lack of sufficient suitable habitat, it is determined that this species is absent in the study corridors. No impacts are expected.

Delhi sands flower-loving fly: The Delhi sands flower-loving fly (DSF) (*Rhaphiomidas terminatus abdominalis*) is a federal endangered species (58 Federal Register 49881) (USFWS 1997), and is covered by the MSHCP. The DSF is approximately 2.5 centimeters in length and orange-brown in color, and has dark brown spots on the upper surface of the abdomen (USFWS 1997). This species is restricted by the distribution and availability of open, undisturbed habitats of native vegetation within the fine, sandy Delhi series soil. The life span of this animal is

unknown, but the larval stage may be two years or longer, depending on the availability of food, temperature, rainfall, and various other environmental factors (USFWS 1997). The early stages of the DSF are specialized for a fossorial (burrowing) existence in substrates with a high blow sand fraction. The body shape and structures enable the larvae to burrow through the fine sand, and the heads of the pupae possess a large spine that may be useful in tunneling through the soil for emergence (USFWS 1997). Adults are active in the late summer; however, the animal spends the rest of its life cycle underground.

DSF distribution in the Proposed Project vicinity straddles I-10 in the surrounding cities of Colton, Rialto, and Riverside, and western San Bernardino County. The distribution of the DSF within Riverside County is limited to the northern portion of the County within Mira Loma, Jurupa Valley, and the Agua Mansa area. Dominant plants within the DSF habitat consist of California buckwheat, telegraph weed (*Heterotheca grandiflora*), and croton.

During initial siting evaluation, certain potential routes were determined to support suitable or mapped habitat for this species. Focused surveys in 2006 did locate several individuals of this species within potential alignment links that were eliminated from further analysis due to identified constraints. Accordingly, because the alignments involving these occurrences are no longer being considered for the Proposed Project, these observed occurrences are not further evaluated within this DEIR. Survey protocols, set forth by the USFWS Interim General Survey Guidelines for the DSF, were utilized to maximize the validity of a presence/absence determination (Osborne 2006). During focused surveys in 2006, two female and three male Delhi sands flower-loving flies were observed within an initially evaluated, but subsequently rejected, eastern corridor.

The MSHCP includes mapped suitable soils that are required to be surveyed during July in two consecutive years to determine presence. The Proposed Project includes suitable mapped soils within the northern end near Interstate 15. This area currently supports ruderal, non-native vegetation, has been disked, appears to have been used for pasture or agriculture, and does not support any native characteristic plants. Focused surveys of suitable soils within the Proposed Project alignment parcel that were conducted in 2010 did not observe this species (Osbourne, 2010). The second year of the focused survey will be conducted in 2011 to comply with MSHCP requirements. Because of the disturbed site conditions and urban disturbances and the results of the 2010 survey, the “not likely to affect” determination is supported for analysis of this species. This would equate to a less than significant impact under CEQA. If, during the 2011 survey, DSF is detected, RPU would include the focused survey results with the submittal application for the MSHCP consistency determination and mitigate according to RCA and USFWS requirements. This process is included in the MSHCP and permitted as a proposed adequately conserved species per the MSHCP Incidental Take Permit (ITP). Therefore, an unlikely presence determination would be mitigated to less than a significant impact should it occur. The current determination for this analysis, however, is still “no effect.”

Greenest tiger beetle: The greenest tiger beetle (*Cicindela tranquebarica viridissima*) is State species of concern. Habitat utilized by this species includes woodlands adjacent to the Santa Ana River basin. It is determined that this species has a high potential to occur within the study corridors. However, potential habitat will be avoided and no construction of the Proposed Project will impact the habitat; therefore, it is not expected to directly or indirectly affect this species based on design and construction specifications.

Fish

Arroyo Chub: The arroyo chub (*Gila orcutti*) is a State species of concern and is covered by the MSHCP. The arroyo chub is known to occur in the Santa Ana River, from the City of Jurupa Valley downstream to the Prado Basin (MSHCP 2001). This species breeds more or less continuously from February through August, although most spawning takes place in June and July. The Proposed Project would span the Santa Ana River and thus, is not anticipated to directly or indirectly affect this species.

Santa Ana Sucker: The Santa Ana sucker (*Catostomus santaanae*) is a federal threatened species (65 Federal Register 19686-19698) and a State species of concern and is covered by the MSHCP. Historically, this species ranged throughout Southern California, including the San Gabriel, Los Angeles, and Santa Ana River drainages (MSHCP 2001). This species lives in shallow streams and survives in the lower portions of the Santa Ana River from the Imperial Highway (State Route 90) to Rubidoux near the City of Riverside (MSHCP 2001). The Santa Ana sucker breeds in tributary streams; however, it has not been observed to breed in the Santa Ana River. The river channel typically supports a higher velocity flow and the water quality is also considered unsatisfactory to support this species' breeding requirements. Dispersal usually occurs up or downstream as conditions and suitable habitat permit, and is typically facilitated by flooding events. The Proposed Project would span the Santa Ana River and thus, is determined to not directly affect this species. The Proposed Project description includes the placement of towers on either side of the river channel and outside of the Critical Habitat boundary. Work limits for tower construction, tower footprints, and pull and tension sites would be in upland locations. Stringing of the conductor pull lines would be completed by helicopter and no entry to the river channel vegetated areas or open water by equipment is expected. There is no dredge or fill action expected from construction of this aerial crossing of the Proposed Project. Thus, no direct or indirect impact to the Santa Ana sucker or the river will occur as a result of the Proposed Project.

69 kV Subtransmission Lines

Vegetation Communities and Cover Types

Plant communities were characterized by utilizing series descriptions from MSHCP and CNDDDB. This information was cross-referenced with other sources, including USGS 7.5-minute quadrangle maps, GIS data, and a review of prior survey reports conducted in the general area. The vegetation communities present along each link are presented in the Technical Appendices of this report. Table 3.2.4-3 summarizes cover types within 1000-foot study corridors along the proposed 69 kV routes.

TABLE 3.2.4-3. VEGETATION AND LAND COVER CATEGORIES WITHIN 1000-FOOT STUDY CORRIDORS FOR 69 kV PORTION OF PROPOSED PROJECT

Vegetation or Land Cover Type	Acres	Percentage
Agriculture-Dairy	2.43	0.2%
Bare ground/disturbed	424.3 123.5	9.53 %
Developed	4022.7 1029.5	78.4 77.9%
Disturbed	23.4 48.3	4.83 7%
Landscaping	409.6 98.9	8.47 5%
Non-native Grassland	4.53	0.32%
Riparian Scrub	4.20	0.3%

Vegetation or Land Cover Type	Acres	Percentage
Riversidian Sage Scrub	4.94	0.43%
Southern Cottonwood/Willow Riparian	13.87.4	1.10.6%
Totals	1300.8 1321.5	100.0%

Special-Status Species

Special-status species include those listed as threatened, endangered, candidate, or proposed under the federal ESA and under the CESA, and those included in the MSHCP. Sensitive plant species include those that occur on the CNPS Inventory of Rare and Endangered Vascular Plants of California.

A special-status species was considered a potential inhabitant of the study area if its known geographical distribution encompasses part of the RTRP site, or if its distribution was located near the site and general habitat requirements of this species was present (e.g., foraging habitat, nesting or roosting, specific soil type, or a permanent water source). See previous sections and the Biological Resources technical report for descriptions.

The following special-status species have the potential to occur along the 69 kV subtransmission study corridors.

Sensitive Plant Species

Within the vegetation communities crossed by the 69 kV subtransmission study corridors, seven sensitive plant species have the potential to occur. Although no sensitive plant species were observed during field surveys, the following plants have the potential to occur within the 69 kV limits of the Proposed Project area because suitable habitat is present.

- San Diego ambrosia
- slender-horned spineflower
- Parish's desert-thorn
- Parry's spineflower
- rayless ragwort
- Robinson's peppergrass
- San Miguel savory

Sensitive Wildlife Species

The following sensitive wildlife species have the potential to occur within the 69 kV portions of the Proposed Project area.

Special-Status Bird Species

- western burrowing owl
- least Bell's vireo
- southwestern willow flycatcher,
- tricolored blackbird
- western yellow-billed cuckoo

Special-Status Mammal Species

- Stephen's kangaroo rat
- western mastiff bat
- western yellow bat

Special-Status Reptiles

- coast horned lizard
- northern red-diamond rattlesnake
- orange-throated whiptail

Wildlife/Wilderness 230 kV Substations

The proposed substations are located in areas dominated by commercial and industrial uses. The vegetation cover of the site comprises manicured lawn, ruderal/disturbed field, and non-native grassland. Three species have the potential to be located within this disturbed area, and are listed below.

Special-Status Plants

- **San Diego ambrosia**

Special-Status Bird Species

- **western burrowing owl**

Special-Status Mammal Species

- **western yellow bat**

69 kV and 230 kV Substation Upgrades

Existing substation sites that would be upgraded under the Proposed Project are ~~converted~~ fully developed and do not support native habitat, and are generally surrounded by urban areas. These sites do not support native forage habitat or suitable resource for occupancy by sensitive species with a potential to occur in the Proposed Project vicinity.

Regulatory Setting

The following federal, State, and local environmental regulations are applicable to the protection and conservation of the biological resources within the Proposed Project area.

Federal

Endangered Species Act (16 United States Code [U.S.C.] 1531, 1994) – Under the ESA, no person may “take” a species listed as threatened or endangered without a permit. The act is administered by the USFWS under the United States Department of the Interior (USDI). “Take,” as defined by the ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.” Destruction or disruption of habitat of a listed species can, under certain circumstances, result in the take of such species. The ESA includes a provision for permitting incidental take of listed species on private lands when a

Habitat Conservation Plan (HCP), identifying the anticipated impacts of specific projects and implementing appropriate conservation measures, is prepared and approved with the issuance of a Section 10 permit.

Section 10 provides a means whereby a non-federal action with a potential to result in the take of a listed species could be allowed under an incidental take permit. Both the MSHCP and the SKRHCP provide take coverage to covered species within the Proposed Project area. Section 7 is applicable to federal agencies and requires consultation with USFWS. The Proposed Project, as identified in the Land Use analysis, will cross recreational lands that were purchased through a Land and Water Conservation Fund Grant, administered by the National Park Service. The Proposed Project will be consistent with the MSHCP and therefore will be covered by the Section 10 permit and the Biological Opinion.

In respect to Section 7 consultation under the ESA, the MSHCP Implementing Agreement Section 14.9 and as discussed in the MSHCP identifies that the permittees will be covered by Section 10 (ITP) and that, as applicable, USFWS will review for Section 7. The MSHCP identifies that USFWS will evaluate the direct, indirect, and cumulative effects of the Covered Activities in its internal ESA biological opinion issued in connection with the MSHCP and issuance of the Section 10(a) Permit. As a result, and to the maximum extent allowable, in any consultation under Section 7 of the ESA subsequent to the MSHCP ITP Effective Date involving the Permittee(s) or entity with Third Party Take Authorization with regard to Covered Species Adequately Conserved and Covered Activities, the USFWS shall ensure that the ESA biological opinion issued in connection the Proposed Project that is subject of the consultation is consistent with the internal ESA biological opinion. Such a project must be consistent with the terms and conditions of the MSHCP and the Implementing Agreement. The USFWS shall not impose measures in excess of those that have been or will be required by the Permittee(s) or entity with Third Party Take Authorization pursuant to the MSHCP and this Agreement. The USFWS shall process subsequent ESA consultations for Covered Activities in accordance with the process and time periods set forth in 50 Code of Federal Regulations, section 402.14.

The Migratory Bird Treaty Act (16 U.S.C. 703-711) – The MBTA is an international treaty for the conservation and management of bird species which may migrate through more than one country. The treaty makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture or kill migratory birds except for those species specifically excluded by the MBTA.

The MSHCP Section 10 Incidental Take Permit identifies that permittees will comply with the MBTA and no take of nest, eggs, or chicks will occur (ITP, page 83). Furthermore, as identified in the MSHCP, Implementing Agreement Section 14.13 and as identified in the MSHCP regulatory structure, the MSHCP, Section 10(a) Permit shall constitute a Special Purpose Permit under 50 Code of Federal Regulations section 21.27, for the Take of Covered Species Adequately Conserved listed under ESA and which are also listed under the MBTA, in the amount and/or number specified in the MSHCP, subject to the terms and conditions specified in the Section 10(a) Permit. A proposed project is therefore covered for “take” under the MBTA for covered species and the lawful take of a MSHCP-covered species or its habitat protected by the MBTA will not result in a violation of the MBTA. A proposed project, however, would nevertheless not be allowed to knowingly take an active nest or intentionally result in the nest failure during construction without a separate authorization from USFWS and, as applicable,

CDFG.

Bald and Golden Eagle Protection Act of 1940 – The act states that it is unlawful to take, pursue, or disturb American bald and golden eagles. This act also protects individual eagles and their nests and eggs from willful damage or injury. Violation of this act results in civil penalties. The bald eagle was removed from the ESA in 2007, but is still protected and considered to be a sensitive species through this Eagle Protection Act. In February 2011, the USFWS published draft guidelines of the Eagle Protection Act. While the guidelines are currently in draft form, it is expected that this document will be finalized within the next 12 months. The Proposed Project will comply with the intent of the draft guidelines and no effect to resident or wintering eagle is expected as result of Proposed Project implementation.

Fish and Wildlife Coordination Act – The Fish and Wildlife Coordination Act (16 U.S.C. 661-666) applies to any federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Federal agencies and projects funded by federal money or affecting federal lands or jurisdiction are required to consult with USFWS and the appropriate State wildlife agency. These agencies prepare reports and recommendations that document project effects on plants and wildlife and identify measures that may be adopted to prevent loss or damage to biological resources.

Clean Water Act of 1972 (33 U.S.C. 1251, 1994) – The Clean Water Act (CWA) is the principal federal statute protecting navigable Waters of the U.S. and adjoining shorelines from pollution. The Clean Water Act is administered by the Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE). USACE is responsible for regulating the discharge of fill material into waters of the U.S. Waters of the U.S. include lakes, rivers, streams and their tributaries, as well as wetlands. Since its enactment, the CWA prohibits the discharge of pollutants into waters of the U.S. without a permit. Section 404 of the CWA provides that whenever any person dredges or places any fill material from or into waters of the U.S. including, without limitation, wetlands, streams, and bays (e.g., while undertaking road construction, bridge construction, or streambed alteration), a permit is required from USACE.

State

California Environmental Quality Act (Public Resources Code 21000 et seq.) – CEQA requires State and local agencies to identify and disclose environmental impacts that may cause a physical change in the environment. CEQA further requires agencies to avoid or minimize significant impacts, when feasible. When avoiding and minimizing significant impacts is not feasible, agencies are required to provide a written document of overriding considerations when they decide to approve a project.

California Endangered Species Act (CA Fish and Game Code 2050-2126) – The CDFG administers the California Endangered Species Act (CESA), which protects wildlife and plants listed as threatened and endangered by the California Fish and Game Commission. Parallel to the federal ESA, the CESA provides additional protection to threatened and endangered species in California. As with the ESA, CESA prohibits the take of listed ~~and candidate~~ species without a permit. Many species are listed as threatened or endangered under both the State and federal Endangered Species Acts.

CESA requires State agencies to conserve threatened and endangered species (Section 2055), and thus restricts all persons from taking listed species except under certain circumstances. The requirements for an application for an incidental take permit under CESA are described in Section 2081 of the California Fish and Game Code and in final adopted regulations for implementing Sections 2080 and 2081.

The California Native Plant Protection Act of 1977 – The California Native Plant Protection Act prohibits importation of rare and endangered plants into California, “take” of rare and endangered plants, and sale of rare and endangered plants. CESA defers to the California Native Plant Protection Act, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA but rather must be analyzed under CEQA.

Lake and Streambed Alteration Agreement (CA Fish and Game Code, Section 1600) – Under this agreement, entities which propose to divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake in which there is at any time an existing fish or wildlife resource, must first notify the CDFG prior to the activity (California Fish and Game Code §1603). When an existing fish or wildlife resource may be “substantially adversely affected by the project or activity,” the CDFG must respond to the notice by providing a description of the resource which would be affected and submitting a proposal for measures necessary to protect the identified plants and wildlife. The agreement outlines specific requirements related to construction techniques and compensatory measures to mitigate adverse impacts. Long-term monitoring may be required as part of the mitigation process.

Regional and Local

Western Riverside County Multiple Species Habitat Conservation Plan – The MSHCP (2003) is a comprehensive, multi-jurisdictional program focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP is designed to provide protection and conservation efforts for threatened and endangered species through a multi-species habitat-based long-term approach that covers approximately 1.26 million acres in western Riverside County. The ultimate goal is to protect multiple species by preserving a variety of habitat and providing linkages between different habitat areas. In 2004, USFWS issued a Section 10 Incidental Take permit for the Covered Species.

The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of the federal ESA, as well as a Natural Communities Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP promotes the biological viability and recovery of Western Riverside County’s ecosystems, habitats, and species within the area, with the ultimate goal of reducing the need to list additional species in the future. Though the USFWS and the CDFG have authority to regulate the take of threatened and endangered species, consistent with the terms and conditions of approval of the MSHCP, the USFWS and CDFG have granted “Take Authorization” to participating jurisdictions such as the City of Riverside in exchange for the assembly and management of coordinated MSHCP Conservation Areas for 146 “covered species.” Of the 146 “covered species,” 118 species are considered “adequately conserved” within the MSHCP. The Proposed Project is located in northwestern Riverside County in private, quasi-public lands, and public lands and within the MSHCP boundaries. The Proposed Project will mitigate potential impacts to

Covered Species under the MSHCP through payment of mitigation fees and compliance with other requirements of the MSHCP as applicable. These requirements will provide full mitigation under CEQA, ESA, and CESA for impacts to the MSHCP Covered Species and habitats.

The Habitat Evaluation and Acquisition Negotiations Strategy (HANS) process is used by the City, a permittee under the MSHCP, to ensure Plan compliance by identifying and delineating conservation areas on specific properties. The City is the lead agency for purposes of ensuring MSHCP compliance for the Proposed Project in coordination with RCA. Should the Proposed Project affect an identified criteria cell, it will be reviewed, as applicable or required, by the same process. The Proposed Project would cross or require limited construction work within portions of Criteria Cells 610, 617, 643, and 700. The Proposed Project is determined to comply with habitat conservation goals and requirements for the affected Criteria Cells. Because of the limited discreet construction footprint and the “no effect” from the aerial spans, it is not expected that the Proposed Project will require HANS review for an MSHCP consistency determination. Additionally, it is expected, based on preliminary meetings with RCA, that the Proposed Project will comply with Criteria Cell conservation requirements and have a minimal effect that may not require a Joint Project Review as part of the HANS process. RPU will submit the final approved alignment to the City of Riverside for a consistency determination. The City of Riverside would require Consistency Determinations from the County of Riverside, City of Norco, and, if the Implementation Agreement is satisfactorily amended at the completion of the City’s consistency review, the City of Jurupa Valley.

Stephens’ Kangaroo Rat HCP – The Stephens’ Kangaroo Rat Habitat Conservation Plan (SKRHCP) was adopted in 1996. The City is a permittee under the SKRHCP and although the Proposed Project is not expected to have any impact to SKR, the City will comply with its requirements. No SKR conservation habitat would be affected per the SKRHCP. Based on the MSHCP and the USFWS ITP for the MSHCP, this species is adequately conserved and no additional surveys are required for the Proposed Project.

Impact Assessment

This section addresses the potential impacts on biological resources that could result from the implementation of the proposed action. The study area for impact evaluation includes the 230 kV transmission lines, 69 kV subtransmission lines, and the Wildlife and Wilderness Substations.

The Proposed Project has the potential to result in three types of impacts to biological resources: direct, indirect, and cumulative. Direct impacts are considered to include mortality resulting from construction or operation of the Proposed Project, permanent loss of habitat, and permanent alteration of breeding, foraging or movement habitat and structure. Indirect impacts are considered to be secondary related effects that decrease habitat value through temporary or permanent disturbance, including short-term noise, dust, or water impacts during construction. Direct and indirect impacts may be either long-term (permanent impacts) or short-term (temporary impacts during construction only). Cumulative impacts are discussed in Chapter 4 of this DEIR.

Significance Threshold Criteria

A significant impact is defined as “a substantial, or potentially substantial, adverse change in the environment” (PRC § 21068). Expected significant impacts include disturbance and removal of

natural vegetation that may be utilized by sensitive species, habitat fragmentation, and decrease in habitat quality. The Proposed Project is expected to create short-term construction-related impacts, and long-term or permanent displacement from the new transmission structures.

The following significance thresholds are based on the CEQA environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to describe the potential impacts of the Proposed Project and alternatives upon the sensitive biological resources that may occur in the Proposed Project area. A project would have a significant impact on biological resources if it would result in one or more of the following:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- c) 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.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

The Mitigation Measures in Table 3.2.4-5 will be implemented to reduce or avoid impact to sensitive or protected species. They are suitable for linear projects that have the ability to minimize or change the construction footprint in discrete locations, have sequential construction actions that can be staggered or staged to avoid resources, and do not have a fixed Project footprint (the analyzed footprint is a worst-case scenario, based on design, and not necessarily the required construction footprint, which may be less). Therefore, these measures would reduce the footprint and avoid and minimize impacts, which will mitigate identified impacts to a less than significant level. It is noted that per participation in the MSHCP, and paying the required in lieu fees, the Proposed Project impacts to sensitive species (covered by the MSHCP ITP) or habitat are mitigated to a less than significant level as identified in Mitigation Measure BIO-1. The additional measures apply procedural direction to further reduce these already ~~insignificant~~mitigated impacts through describing permit requirements for preconstruction surveys, adding field measures to more clearly identify avoidance and minimization goals to be implemented during the Proposed Project, or adding specific restrictions for sensitive resource protection and avoidance. While such actions as preconstruction surveys do not technically mitigate an impact, they do reduce the potential to affect sensitive species by determining presence at the start of ground disturbance for species that are mobile or seasonal and may establish within the Proposed Project ROW after the completion of baseline surveys used for this

environmental analysis.

Table 3.2.4-4 presents the design Proposed Project footprint and associated potential temporary and permanent habitat impact by habitat type. This information is based on the assumption of a typical construction footprint for pole, tower, and pull site requirements, and best available data for expected new access roads. The Proposed Project would be expected to submit the identified habitat impacts for consistency determination and mitigation compensation fee requirements with the MSHCP.

TABLE 3.2.4-4. PROPOSED PROJECT FOOTPRINT HABITAT IMPACTS

Vegetation or Land Cover Type	Acres in ROW	Temporary Impact from Construction	Permanent Impact from Construction	Substation Impacts	New Access Road Impacts
Agriculture Ag-Dairy	11.994	41.56 30	0.53 08	0.00	2.88 6
Bare ground/disturbed	19.799	24.21 0.09	4.50 12	0.00	2.93 11
Developed	45.18 14.92	7.41 2.99	0.04 05	0.00	0.52 1.31
Disturbed	1.18	1.26	0.00	0.03	0.07
Disturbed <u>Alluvial</u>	2.90 0.00	5.50 15	0.23 00	0.03 00	0.40 00
<u>Field Cropland</u>	15.32	6.73	0.10	0.00	2.01
Landscaping	446.13	5.73 86	0.35 05	8.88 2	0.11 15
Non-native Grassland	42.84 1.09	33.52 4.68	0.78 25	0.46 15	4.95 3.68
Riparian Scrub	0	0	0	0	0
Riversidian Sage Scrub	1.77 0	2.84 8	0.00	0.06	0.24
Southern Cottonwood/Willow Riparian	41.85 0.02	0.20 00	0.00	0.00	0.00
Totals	446.98 117.32	87.56 8.54	3.43 0.65	9.05 0.06	8.27 14.43

TABLE 3.2.4-5. MITIGATION MEASURES – BIOLOGICAL RESOURCES

Mitigation Measures	Description
BIO-01	Habitat Conservation and MSHCP Compliance – The Project Proponent (RPU) shall pay the MSHCP fees for temporary and permanent impacts to natural land and habitat in compliance with the MSHCP. Acreage Fees will be based on design footprint and confirmed by as-built data as available and applicable to confirm mitigation compliance, and as negotiated with RCA for the public facility. The Proposed Project (responsibility of RPU and SCE) shall also comply with all other applicable MSHCP and SKRHCP requirements. The Proposed Project shall also implement the urban/wildlands interface requirements of the MSHCP for all areas adjacent to conservation areas. Additionally, both RPU and SCE shall comply with all other requirements of the MSHCP. Habitat Conservation and MSHCP Compliance – The Project Proponent (RPU) shall pay the MSHCP fees for temporary and permanent impacts to natural land and habitat in compliance with the MSHCP. Acreage Fees will be based on design footprint and confirmed by as-built data as available and applicable to confirm mitigation compliance, and as negotiated with RCA for the public facility. The Proposed Project (responsibility of RPU and SCE) shall also comply with all other applicable MSHCP and SKRHCP requirements. The Proposed Project shall also implement the urban/wildlands interface requirements of the MSHCP for all areas adjacent to conservation areas. Additionally, both RPU and SCE shall comply with all other requirements of the MSHCP.

Mitigation Measures	Description
BIO-02	<p>Transmission lines: Structures and Avian Protection - All transmission structures (TSPs and LSTs) would be designed to be avian-safe in accordance with "Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006" (Avian Power Line Interaction Committee, 2006). This will include, but is not limited to, the following: conductors will be spaced to an acceptable distance of raptors such as red-tailed hawk and golden eagle to avoid potential electrocution risk;</p> <ul style="list-style-type: none"> • <u>bus bars</u> or other points of electrocution shall be covered with non-conductive caps; • <u>aerial spans</u> of the Santa Ana River will be marked with <u>best available</u> UV reflectors (bird diverters) every 100 feet <u>alternating and staggered</u> along the <u>outer</u> conductors; • <u>nest deterrents</u> will be implemented <p>The Proposed Project shall implement APLIC guidelines (current guidelines as of 2011). Designs for APLIC compliance will be reviewed and approved by SCE, RPU and the Project Biologist (69 kV section will not include SCE approval).</p>
BIO-03	<p>Preconstruction Surveys for Sensitive Species and MSHCP Compliance —If listed</p> <p><u>Western burrowing owl (BUOW): 1) Conduct focused surveys to determine active or sensitive species is detected potential nest sites during the breeding season prior to initiation of field construction disturbance. Use observed active burrow location data to schedule construction activity in the area of the active burrows to occur between September 1 and February 1. Adjust pole location or potential access roads to avoid active burrows. 2) Conduct pre-construction surveys described below, final structure locations, access and spur roads, for BUOW between 14 and associated temporary ground disturbance areas would 30 days prior to field construction disturbance. Owls located during the pre-construction survey shall be relocated to avoid direct reported to the RCA. 3) Avoidance and minimization measures, including installation of fencing and/or screening appropriate to clearly mark work restriction limits and, as practical, screening line of sight to active, occupied burrows, shall be installed and also reported to the RCA. Avoidance and minimization of indirect impacts to these species or their habitat or as allowed by the MSHCP and State and federal permits. BUOW will be in accordance with the CDFG Staff Report on Burrowing Owl Mitigation, dated March 7, 2012. A biological monitor shall also be placed where avoidance and minimization measure have been installed to monitor owl activity and to ensure barriers are suitable in accordance with MM BIO-06.</u></p> <p><u>Conduct preconstruction surveys for western burrowing owl no more than two weeks prior to vegetation clearing or soil disturbance, nesting birds prior to construction from February 15 through September 15. Implement avoidance measures for active nests and burrowing owls as required by MSHCP and its B.O implementation Guidelines. Comply with MSHCP and CDFG requirements if an occupied or active burrow needs to be closed or removed (implement proper closure and replacement burrow requirements).</u></p> <p><u>Narrow endemic plants:</u> For the MSHCP narrow endemic plant species determined to have the potential to occur but not detected during design surveys, conduct preconstruction sensitive plant surveys within suitable habitat within the ROW and Work Limits during the Spring bloom season within one year prior to construction. If sensitive plant species are encountered <u>and cannot be avoided</u> then seed will be salvaged. Salvaged seed will be stored and used for restoration of temporarily disturbed suitable soils and site conditions.</p> <p><u>Conduct raptor nest surveys beginning in the middle of January within six months prior to construction to determine presence of active raptor nest within 500 feet of the work limits, laydown yard, or other active project location where work may disturb an active nest. Bats: Conduct sensitive bat species (western mastiff bat and western yellow bat) roost emergence surveys at appropriate times of the year (year-round survey is satisfactory) in areas of suitable roost habitat that has the potential to be affected by construction. Active roost would be avoided until the roost is determined to be no longer active (as determined by the Project biologist). Western mastiff bat roost sites are associated with rock faces and possibly taller buildings; no suitable roost habitat is identified within the Project work limits. Western yellow bat roost sites are associated with palm tree and the lower hanging palm tree skirt; palm trees are within or adjacent to the Project work limits. Palm trimming or removal would occur after preconstruction survey and to extent possible between August 1 and December 30 to avoid potential breeding or lower winter time activity window). If active roost is unavoidable, RPU and SCE would consult with RCA and CDFG and implement their recommendations.</u></p> <p><u>All surveys would be conducted by qualified biologists approved by USFWS, CDFG, and RCA.</u></p>

Mitigation Measures	Description
	<p><u>If any listed or sensitive species are detected during pre-construction surveys, final structure locations, access and spur roads, and associated temporary ground disturbance areas would be adjusted or completely relocated to avoid direct impacts to these species or their habitat or as allowed by the MSHCP and State and federal permits. Establish work restriction areas for active nests. Coordinate with CDFG for potential to deter nesting (i.e., temporarily cover stick nest).</u></p>
<p>BIO-04</p>	<p>Nocturnal Lighting Minimization and Prevention – Nocturnal lighting during construction and normal operation would be minimized at the substation sites by using directional lighting (shielded and positioned downward) to minimize indirect impact by stray light on the surrounding habitat. All external building or permanent structure lighting (except FAA warning lights) shall be shielded and light canopy contained to the facility substation footprint. Minimize stray and extraneous lighting. Lighting plans will be reviewed and approved by the Project Biologist and RPU prior to construction, and any further recommendations from the Project Biologist regarding lighting shall be implemented.</p>
<p>BIO-05</p>	<p>Worker Environmental Awareness Program (WEAP) Design and Implementation – A WEAP shall be prepared. Field construction project personnel including construction management, construction crews and contractors shall be required to participate in WEAP training prior to starting work on the project. WEAP will be presented as a PowerPoint presentation or through a manual or handbook. Include discussion of sensitive species, habitat, water quality protection, hazardous material spill prevention and cleanup, and minimizing impact to wildlife and adjacent vegetation. The Project Biologist will determine any exemption from the training requirement (i.e., vendors, subcontractor truck drivers, delivery drivers).</p>
<p>BIO-06</p>	<p>Environmental Compliance Monitoring During Construction – Environmental Compliance Monitors would be present during construction activity with the potential to affect biological sensitive resources, and periodically during other construction activity. Monitoring will be required for vegetation clearing and when construction occurs in the vicinity of sensitive biological resources. Monitoring will be conducted periodically as determined by the Project Biologist during remaining project construction to confirm work limits are maintained and protected resources are avoided.</p>
<p>BIO-07</p>	<p>Minimize Amount of Vegetation Removal and Permanent Loss of Habitat – Vegetation clearing or removal would be restricted to surveyed and approved limits of the ROW, Substation footprint, Access Roads, and Staging Areas. Vegetation removal would be limited in sensitive habitats (the intent is to disturb less than the approved project work limits). The contractor would use overland access that crushes vegetation to maintain root structure and enable resprouting and faster restoration, use existing roads or jeep trails, and minimizes disturbance of new areas and removal of mature tree, cactus or woody shrub vegetation. Prior to clearing, conduct topsoil salvage evaluation to determine if soil is suitable for salvage, in which case it would be used for restoration on-site, by being generally free of non-native weed species, trash, or other contaminants that would limit usefulness during restoration and revegetation. Topsoil found not suitable for salvage will not need to be segregated from subsoils.</p>
<p>BIO-08</p>	<p>Migratory Bird Treaty Act Compliance: Avoidance of Active Nests – All observed active nests <u>detected during pre-construction surveys</u> would be avoided in compliance with the Migratory Bird Treaty Act (this excludes European starling, house sparrow, or rock pigeon), unless approval is obtained from the USFWS.</p> <p><u>All surveys would be conducted by qualified biologists approved, as applicable, by USFWS, CDFG, and RCA.</u></p> <p><u>Raptors: Conduct raptor nest surveys beginning in the middle of January within six months prior to construction to determine presence of active raptor nests within 500 feet of the work limits, laydown yard, or other active Project locations where work may disturb an active nest. Establish work restriction areas for active nests. Coordinate with CDFG for potential to deter nesting (e.g., temporarily cover stick nest).</u></p> <p><u>From February 15 through August 15, conduct pre-construction nest surveys no more than two to three days prior to vegetation clearing or ground disturbance in order to identify active nests and avoid direct or indirect impact in accordance with MBTA. Timing would be dependent on nesting conditions and proposed construction activity.</u></p> <p>If active nests are unavoidable, RPU and SCE would consult with the appropriate agencies (USFWS and CDFG) and implement their recommendations. Unless otherwise approved by the regulatory agencies, work will be restricted within 500 feet (line of sight) for raptors or sensitive species and 100 feet for other</p>

Mitigation Measures	Description
	<p>passerines. Work will be restricted around any observed active nest of a bird covered by the MBTA until the Project Biologist determines the nest has naturally failed, been lost to predation, or chicks are fledged and satisfactorily independent of nest or roost tree. Work restriction limit will be reviewed by the Project Biologist with the ability to stop work to avoid impact to active nest. Nest is identified as active during incubation through fledging when chicks are independent of nest or nest tree in respect to raptors. Nests observed in areas of active construction would be avoided and monitored per the Project Biologist and in consultation with CDFG or USFWS.¹</p>
<p>BIO-09</p>	<p>Invasive Species Management – The project biologist would prepare measures to avoid or minimize the introduction of invasive plant, invertebrate, and vertebrate species into the project area during construction activities. Construction equipment being brought to the Project limits will be free of accumulated mud and debris. Equipment will be washed prior to project delivery to remove dirt from tracks, body, and attachments. Equipment with accumulated mud or debris will not be allowed to work within the project right-of-way until it is sufficiently clean (cleaning can be completed in a wash station at the laydown yard or offsite at another location not associated with the Project). Areas disturbed by construction will be maintained to control non-native invasive weed species and areas not designed to be bare for fire safety or have other soil stabilization (e.g., gravel, asphalt) will be revegetated and established to be less than 10-percent coverage by non-native weed species (goal will be to establish native cover equal or exceeding adjacent habitat) or have coverage of density and diversity equal to or exceeding 70 percent of adjacent native habitat. (It is expected that adjacent habitat may include non-native grassland. In these areas, the goal will be to establish cover consistent with adjacent areas, with an equal to or less than cover and density as found adjacent).</p>
<p>BIO-10</p>	<p>Avoid Impacts to Federal and State Jurisdictional Wetlands – Construction crews would not fill or dredge streambeds and banks of streams or delineated wetlands (jurisdictional, vernal pool, or otherwise regulated) along the route. In the event that the Project is changed and requires such actions, if it is determined during final design of the Project that impacts to wetlands or riparian habitat may occur, a habitat assessment and, if necessary, a formal wetland delineation, will be conducted. <u>If it is determined that impacts to wetlands and/or jurisdictional waters cannot be avoided, authorization from the U.S. Army Corps of Engineers, California Department of Fish and Game (CDFG), and/or Regional Water Quality Control Board will be obtained after appropriate environmental review. A Lake or Streambed Alteration Agreement if applicable would be secured from CDFG. All permit conditions will be followed to ensure that impacts remain less than significant.</u></p>
<p>BIO-11</p>	<p>Refueling – Streambed Protection – Avoid the fueling of equipment adjacent to drainages, tributaries, or wetlands and associated plant communities to preclude water quality impacts. Associated plant communities should be designated on construction maps and will be situated a minimum distance of 10 meters from drainages, wetlands and storm drain inlets. Contractor equipment shall be checked for leaks prior to operation near riparian areas in coordination with the project biologist.</p>
<p><u>BIO-12</u></p>	<p><u>Wildlife Protection – Excavations deeper than 0.3 m (1.0 ft) will be covered overnight to minimize the potential for vertebrates becoming trapped. Prior to backfilling, excavations will be inspected and observed; trapped wildlife species will be safely removed and released in an adjacent non-construction area.</u></p>
<p><u>BIO-13</u></p>	<p><u>MSHCP – Public / Quasi-Public (PQP) Land Conservation – RPU would replace permanent footprint impacts to identified MSHCP PQP Conserved Lands at a ratio of 1:1. Replacement land would be of suitable habitat value to provide a wildlife resource for foraging or breeding. Land would not be required to support or have the potential to support a sensitive plant or animal species. As approved by RCA and responsible Regulatory Agencies, lands purchased for replacement of Land and Water Conservation Fund land conversion may also be used as the PQP replacement lands.</u></p>

Note:

¹ The typical breeding season is March 15 through August 30 but raptors can begin nesting in late January and some species may begin nesting in February depending on seasonal weather conditions. Therefore a biological monitor will survey for nesting activity for any vegetation clearing and land disturbance that occurs between January 15 and September 15.

Environmental Impacts

The types of potential direct and indirect impacts on biological resources due to the Proposed Project activities are described below. Specific discussion of MSHCP requirements for riparian habitat, narrow endemic plant species, other sensitive wildlife, and wildland interface is also presented.

Specifically recommended Mitigation Measures to reduce potentially significant impacts to sensitive biological resources are proposed. In addition, the City of Riverside is a permittee under the MSHCP and thus, its projects are required to be consistent with that Plan; thus, all Proposed Project-related activities must be consistent with the MSHCP. Sensitive plant and wildlife species with the potential to occur and to be affected are presented below for all Proposed Project components. These sensitive biological resources include Riversidian sage scrub, Delhi sands, riparian areas, cottonwood/willow woodland habitats, wetlands, and water resources. The species considered include wildlife and plant species covered by the MSHCP, Core A Area, or identified as having the potential to occur by USFWS or CDFG, including Los Angeles pocket mouse, Delhi sands flower-loving fly, burrowing owl, San Bernardino kangaroo rat, least Bell's vireo, and southwestern willow flycatcher. The Proposed Project area includes Critical Habitat for least Bell's vireo and Santa Ana sucker within the Santa Ana River channel.

For each potential impact associated with the Proposed Project, a determination is made regarding level of significance. Conclusions of significance are defined as follows: significant impact, potentially significant impact, less than significant, or no impact. If additional specific mitigation would not diminish significant or potentially significant impacts to a less-than-significant level, the impacts are classified as "significant unavoidable impacts."

CEQA Significance Threshold Discussion

a) Have 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.

Construction

Less than Significant Impact with Mitigation.

230 kV Transmission Line

Plants and Vegetation Communities

Based on survey data and known ranges and population locations, Proposed Project construction is not expected to adversely affect a federal or State protected plant species or significant portions of habitat that could support sensitive species. Specifically, Gambel's water cress marsh and sandwort require wet or moist habitats such as marshes, streambanks, and boggy meadows. As designed, the Proposed Project would avoid such areas and these species would not be affected. Brand's phacelia, San Diego ambrosia, Santa Ana River woollystar, slender-horned spineflower, and smooth tarplant are known to occur in open areas, coastal or alluvial fan sage scrub, chaparral, valley and foothill grassland, disturbed areas, gravelly riverbeds, and/or riparian woodlands. While the Proposed Project would cross habitats such as grassland, disturbed areas, and sage scrub, in accordance with MM BIO-03, preconstruction protocol-level surveys would be conducted during the appropriate blooming periods and any listed or sensitive plants would be flagged for avoidance by the Project Biologist. Implementation of MMs BIO-05 and BIO-06 would require workers to be educated on appearance and locations of sensitive or listed species to aid in identification, and avoidance would be enforced by the Environmental Compliance Monitor. Additionally, the Proposed Project will comply with the MSHCP through MM BIO-01, which conserves habitat for sensitive plant species and adequately conserves habitat per the MSHCP ITP and Implementation Agreement.

Installation of new towers ~~could~~ could have the potential to result in the permanent loss of limited areas of native and non-native vegetation communities, including riparian areas associated with tributaries to the Santa Ana River, non-native grasslands, and Riversidian sage scrub. Riparian impacts ~~would be less than~~ approximately 0.5 acre; however, careful micro-siting during final project designs and adjusting field construction limits to avoid this habitat would result in no effect impacts. (The Water Resources analysis identified this potential effect based on design footprints that are expected to be avoided during field construction.) Riversidian sage scrub impact is expected to be less than 0.5 acre. Temporary impact to non-native grassland would account for the primary habitat type impact. While most potential disturbance would be temporary and revegetation is expected, permanent impacts may be one acre for the pole footprints and fire vegetation clearance requirements around each pole. With revegetation and construction occurring in primarily urbanized areas, the effects to vegetation communities and habitat would be less than significant. With regard to potential temporary or permanent impacts to Riversidian sage scrub or riparian habitats, the payment of the MSHCP mitigation fee, as required by MM BIO-01, will provide mitigation by allowing the conservation of those resources in other areas.

The Proposed Project has the potential to alter existing habitat through introduction of non-native plant species through introduction of non-native or invasive plant species. Introduction of non-native or invasive plants species could occur primarily during construction, and could continue to occur during the operation and maintenance phase of the Proposed Project. Vehicles moved from other areas supporting non-native or invasive species could introduce identified non-native or invasive plants by transporting seeds that may be clinging to vehicle structures or that have been incorporated into soil adhering to the vehicle. In addition, the potential for establishment of invasive plants can be increased when construction vehicles alter the structure of existing soils through compaction or excavation, which alters the ability of native plants to compete with introduced plant species. With the integration of MM BIO-09, the potential for the introduction or spread of non-native plant species would also support the less than significant impact determination.

General Wildlife

Direct loss of common, widely occurring, and non-sensitive small mammals, reptiles, and other wildlife species could occur along routes of the Proposed Project. This action would result primarily from the use of construction vehicles and the grading of laydown areas for the tower construction and line pulling. Fossorial species may be harmed through crushing of burrows or loss of refuge from predators, and direct mortality from construction activities is possible. Construction activities and increased human presence can also alter or disrupt breeding and foraging habitat. Construction activities would occur predominantly during the day; however, there may be some instances of night work, at some road crossings. Night work would only be anticipated in areas to reduce conflicts with already-high levels of human activity. Clearing and grading would generate the greatest construction impacts on wildlife. Removal of vegetation during the construction phase of this Proposed Project would temporarily diminish the amount of habitat available for wildlife in the area. Individuals displaced from the areas cleared of native vegetation could be jeopardized if adjacent habitats are already at carrying capacity or if they are exposed to an increased risk of predation.

Direct mortality of common, widely occurring, and non-sensitive wildlife is anticipated to occur

during habitat clearing, earth removal, grading, digging, and equipment movement. Deaths related to construction would be incurred primarily by burrow-dwelling animals; eggs, and nestlings of bird species with small, well-hidden nests, and species with slower or constrained mobility (e.g., snakes, lizards, and amphibians). More mobile species like birds and larger mammals are likely to relocate and utilize an adjacent habitat area if it is present during the land clearing and grading phase associated with TSP and LST construction. Implementation of MMs BIO-01, BIO-03 and BIO-08 would require protocol-level surveys for sensitive species, including nests and burrows, and minimize impacts to wildlife. Implementation of MM BIO-07 would limit vegetation clearance to the minimum amount required for construction and thus minimize loss of habitat and displacement or wildlife from construction areas. The Environmental Monitor would be onsite during vegetation removal and ground disturbance to ensure avoidance of known locations of sensitive habitat and species in accordance with MM BIO-06. With implementation of MM BIO-01, impacts to general wildlife and plants would be less than significant and are mitigated by habitat conservation through the MSHCP. The sensitive species that may be affected are adequately conserved and therefore mitigated through the MSHCP. Additionally, the direct and indirect potential impact to common and widely occurring, wildlife and plant species would not result in a change of status of affected species because the Proposed Project footprint is less than a significant (less than 5 percent) percentage of the existing habitat for these species locally and regionally. Additionally, MM BIO-02 – 09 and BIO 11 and 12 would provide additional avoidance and minimization to further reduce the potential to affect determination.

Based on Proposed Project design and construction specifications, including the spanning of the Santa Ana River, the Proposed Project is not expected to directly affect a federal or State endangered, threatened, or candidate wildlife species. The Proposed Project has the potential to affect, with direct and indirect impacts, federal and State species of concern; however, the Proposed Project would not have a substantial adverse effect on these species. Many of the special-status species identified do not occur within areas potentially affected by the Proposed Project although potential habitat does occur. Riparian habitats provide the majority of foraging habitat for wildlife in the Proposed Project area. Riparian habitat occurs along the Santa Ana River and functions as habitat for a variety of native wildlife species, and the habitat also serves as foraging habitat for many birds of prey that may have home ranges extending beyond the Proposed Project limits.

Installation of new towers would result in the permanent loss of limited areas of native and non-native vegetation communities, including riparian areas associated with tributaries to the Santa Ana River, non-native grasslands, and Riversidian sage scrub, all of which provide habitat for various wildlife species. New conductors may disrupt or hamper natural foraging behavior of avian and bat species. Temporary and permanent loss of habitat that raptors use for foraging would be considered a less than significant because the Proposed Project pole footprints are approximately 10 percent of the identified affected habitat acreage, which is less than 5 percent of the Proposed Project footprint and less than 5 percent of the affected habitat occurring locally and regionally.

Birds

Nesting birds, their active nests, eggs, and chicks are protected under the MBTA and the California Fish and Game Code. Destruction of an active nest would be a violation of the MBTA. Clearing of dense native vegetation or those areas supporting nesting birds during the

nesting season is considered a significant impact. Disturbances from construction could result in nest, roost, or territory abandonment and subsequent reproductive failure if these disturbances were to occur during affected species' breeding seasons. Compliance with the MSHCP, as described by MM BIO-01, would mitigate impact to a less than significant level. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11, and including MSHCP-compliant focused breeding season and pre-construction surveys and season restrictions on construction, would reduce potential impacts to a less than significant level.

The coastal California gnatcatcher, southwestern willow flycatcher, and least Bell's vireo are federal and State protected sensitive species. The yellow-billed cuckoo is listed as State endangered and a candidate for listing by the federal government. These avian species are associated with riparian habitats (e.g., Riparian and Cottonwood/Willow Woodland) along the Santa Ana River. Direct and indirect impacts could occur to these species during Proposed Project activities. The Proposed Project is not expected to directly affect any of these species by mortality. It is possible that the Proposed Project may have short-term indirect effects on these bird species during the construction of the new transmission line. Indirect impacts could also occur from clearing and grading for new structure locations. The removal of vegetation from these areas could result in the loss of forage and cover for the species. These are covered species and adequately conserved by the MSHCP; compliance with the MSHCP, as described by MM BIO-01, would mitigate indirect impact to a less than significant level. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11, and including MSHCP-compliant focused breeding season and pre-construction surveys and season restrictions on construction, would reduce potential impacts to a less than significant level.

Burrowing owls have been observed on the Proposed Project site. Direct impacts to this species could occur from the removal of active burrows and direct mortality of owls during Proposed Project activities. Indirect impacts could occur from increased noise, lighting, and dust during construction. Although this species is not currently listed by federal agencies, it is a State species of special concern and impacts to this species would be considered significant to the CDFG (Assembly Bill 3180). MM BIO-03 would require pre-construction surveys for sensitive species and MSHCP compliance. Additionally, implementation of MM BIO-02 would locate burrowing owls and potential nest sites before construction begins. In accordance with MSHCP and CDFG burrowing owl clearance protocols, burrowing owls would be relocated to new habitat by a trained biologist and their burrows removed to prevent owls from nesting or returning until after construction is complete. As described, the Proposed Project would comply with and participate in the MSHCP through BIO-01 and integrate MM BIO-02 and 03 and coordinate with CDFG to reduce impacts to a less than significant level.

Avian Collision Risk

Factors that influence collision risk can be divided into three categories: those related to avian species, those related to the environment, and those related to the configuration and location of transmission lines. Species-related factors include habitat use, body size, flight behavior, age, sex, and flocking behavior. A bird's flight performance has been shown to be one of the most important factors determining the chances of collision with a transmission line. Environmental factors influencing collision risk include the effects of weather and time of day for transmission line visibility, surrounding land use practices that may attract birds, movement corridors, and human activities that may flush birds into transmission lines. Line-related factors include the configuration and location of the transmission line and transmission line placement with respect

to other structures or topographic features. The spatial configuration of the transmission lines for RTRP would be relatively open, allowing movement above, beneath, and between the transmission lines.

Bird collisions also tend to occur with transmission lines when some migrant species travel at reduced altitudes and encounter tall structures (e.g., transmission lines and towers) in their path. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the Proposed Project vicinity. These data are not available for the proposed transmission line study area; however, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest (e.g. near open bodies of water, wetlands, ridge lines), such as the Santa Ana River. A portion of this area currently supports existing power lines that have no record of significant avian mortality. It is possible that birds would strike the new transmission lines; however, it is not expected to result in a ~~substantial~~ significant adverse increase from current conditions due to preexisting power lines within the same area. Through the incorporation of MM BIO-02 and conformance to Avian Power Line Interaction Committee (APLIC 2006 or current at time of construction contracting) standards, Proposed Project activities are not likely to create significant increases in avian collision risk. This will include, but is not limited to, the following: conductors will be spaced to an acceptable distance for raptors such as red-tailed hawk and golden eagle; busbars or other points of electrocution shall be covered with non-conductive caps; aerial spans of the Santa Ana River will be marked with UV reflectors (bird diverters) every 100 feet alternating and staggered along the ~~outer~~ conductors; nest deterrents will be implemented per SCE requirements and approved by RPU. SCE will determine and implement APLIC guidelines. Designs for APLIC compliance will be reviewed and approved by the SCE, RPU and the Project Biologist.

Mammals

The northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and the southern grasshopper mouse are listed as species of special concern by the State of California. They are also identified as covered species in the MSHCP and are considered adequately conserved. The northwestern San Diego pocket mouse and the San Diego black-tailed jackrabbit are present along the 230 kV transmission line study corridors, however not within the Proposed Project corridor. The Southern grasshopper mouse has the potential to occur in the Study area. It is possible that the Proposed Project may have short-term indirect effects on ~~the small~~ mammal species during construction of the new transmission line. Indirect impacts could also occur from clearing and grading for new tower locations. The removal of vegetation from these areas could result in the loss of forage and cover for these species. Direct impacts to these species, if present, could occur from the Proposed Project as a result of crushing from mechanized equipment, and temporary disruption of foraging. Breeding behavior could also be disturbed due to construction noise and the timing of construction activities. Disturbance to the area would be associated with the temporary removal of vegetation for the construction of structure footings or pulling sites. Construction activity may result in the incidental take of individuals (i.e., adults and juveniles), depending on the construction season. These are covered species and adequately conserved by the MSHCP; compliance with the MSHCP, as described in MM BIO-01, would mitigate indirect impacts to a less than significant level. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11 and 12, would reduce potential impacts to a less than significant level through habitat conservation and avoidance and minimization efforts.

Direct impacts to the western mastiff bat and western yellow bat could occur from the removal of active roosts and direct mortality of bats during Proposed Project activities. Bats are known to abandon young when disturbed. Maternity colonies form prior to March 1 and young are usually volant (flying) after July 31; however, as designed, no tree roost habitat would be affected by the proposed 230 kV transmission line. Indirect impacts could occur from increased noise, lighting, and dust during construction. These are covered species and adequately conserved by the MSHCP; compliance with the MSHCP, as described in MM BIO-01, would mitigate direct and indirect impact to a less than significant level. In addition to MM BIO-01, incorporation of MMs, including BIO-~~02~~03 through BIO-08 and BIO-11, would reduce potential impacts to a less than significant level through habitat conservation and avoidance and minimization efforts.

Reptiles

The coast horned lizard, red-diamond rattlesnake, and orange-throated whiptail are listed as species of special concern. The San Diego banded gecko is listed as a special animal by the State. Potential impacts to these species include habitat loss, disturbance, and mortality during construction through crushing. The coast horned lizard is most common in sandy washes with scattered low shrubs, the red-diamond rattlesnake occurs in rocky areas and dense vegetation, and the orange-throated whiptail prefers washes and sandy areas with patches of perennial plants where it may forage for food. These are covered species and adequately conserved by the MSHCP; compliance with the MSHCP, as described in MM BIO-01, would mitigate direct and indirect impact to a less than significant level. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11 and 12, would reduce potential impacts to a less than significant level through habitat conservation and avoidance and minimization efforts.

69 kV Subtransmission Lines

There is a low potential for the Stephen's kangaroo rat to occur along the 69 kV subtransmission line corridors. Habitat for this species includes annual and perennial grasslands, coastal scrub, and sagebrush with sparse canopy cover; however, the 69 kV study area supports predominantly disturbed and urbanized areas with no suitable undisturbed habitat for this species. Additionally, the City is a permittee under both the MSHCP and the SKRHCP and will comply with all relevant requirements of these plans to mitigate any potential impacts to SKR.

Direct impacts to this species, if present, could occur as a result of crushing from mechanized equipment, and temporary disruption of foraging. Breeding behavior could also be disturbed due to construction noise, and the timing of construction activities. Disturbance to the area would be associated with the temporary removal of vegetation for the construction of structure footings or pull sites. Incidental take of individuals (i.e., adults and juveniles) may result during construction, depending on the construction season. These species are primarily nocturnal; impacts from vehicle use at dawn, dusk, and during the evening would be of concern because they are subject to road kill by passing vehicles. A smaller bout of surface activity may occur before sunrise in the spring and summer.

Indirect effects to this species, if present, may be caused by human activities with increased noise or by attracting predators such as the common raven, bobcat, and coyote to trash and litter. Increased noise can interfere with breeding and mask the approach of predators. The Proposed Project may have short-term indirect effects to this species during the construction of the new subtransmission lines. Indirect impacts could also occur from clearing and grading for new

structure locations. The removal of vegetation from these areas could result in the loss of forage and cover for this species. With implementation of MM BIO-01, impacts to general wildlife and plants would be less than significant and are mitigated by habitat conservation through the MSHCP. The sensitive species that may be affected are adequately conserved and therefore mitigated through the MSHCP. The direct and indirect potential impact to common and widely occurring wildlife and plant species would not result in a change of status of affected species because the Proposed Project footprint is a less than significant (less than 5 percent) percentage of the existing habitat for these species locally and regionally. Additionally, the City is a permittee under both the MSHCP and the SKRHCP and will comply with all relevant requirements of these plans to mitigate any potential impacts to SKR. Proposed Project activities would therefore not adversely affect populations of this species, and potential impacts would be less than significant. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11 and 12, would reduce potential impacts to a less than significant level through habitat conservation and avoidance and minimization efforts.

Overhead power line and electrical substations pose potential direct impact to wildlife. Birds and bats have the potential to collide with conductors or be exposed to electrocution risk; other wildlife also have the risk of electrocution through contact with electrical infrastructure. Electrocution may take place when an animal, most commonly a bird, touches two phase conductors or one conductor and an earthed device simultaneously, especially when the feather area is wet. Interconductor distances are generally considered a problem at 69 kV or low voltages; however, within RPU's subtransmission system, all 69 kV lines are built with hardware at 115 kV standards. New lines associated with the Proposed Project would be built to the same standards. In addition, the Proposed Project area is currently urbanized with many existing overhead lines. Overhead lines pose a collision risk to birds and bats. Because of the urban environment, prevalence of existing aerial obstacles, and areas not within a major flyway, the risk of collision is not expected to increase, and impacts to wildlife related to introduction of new transmission lines would be less than significant.

230 kV Substations

Construction activities under the Proposed Project would result in the removal of vegetation occurring within the proposed development "footprint" at the Wildlife/Wilderness Substations site. The site would be graded using cut and fill techniques to create a flat construction surface sloped to permit drainage from the site. The final earth surface would be capped by crushed rock prior to electrical equipment installation and support facilities. Of the total area, approximately nine acres would be converted as the substation site and would be considered a permanent impact. Currently, this area of City-owned land is used as a test site for the nearby Toro lawn equipment manufacturing facility. Some peripheral, temporary disturbance may occur from associated construction, activities including equipment staging and storage areas.

There are one sensitive plant (San Diego ambrosia) and two sensitive animal (burrowing owl and western yellow bat) species with potential to occur within the proposed footprint of the Wildlife/Wilderness Substations. The site provides no roost or foraging habitat for western yellow bats.

In accordance with MSHCP and CDFG burrowing owl clearance protocols, burrowing owls would be relocated to new habitat by a trained biologist and their burrows removed to prevent

owls from returning. With implementation of MM BIO-01, impacts to sensitive species and general wildlife and plants would be less than significant and are mitigated by habitat conservation through the MSHCP. The sensitive species that may be affected are adequately conserved and therefore mitigated through the MSHCP. The direct and indirect potential impact to common and widely occurring wildlife and plant species would not result in a change of status of affected species because the Proposed Project footprint is a less than significant (less than 5 percent) percentage of the existing habitat for these species locally and regionally. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11, would reduce potential impacts to a less than significant level through habitat conservation and avoidance and minimization efforts.

69 kV Substation Upgrades

Minor upgrades and modifications to existing substations that would occur under the Proposed Project would all occur within the boundaries of existing substations. These activities would all be similar in scale to normal maintenance. No impacts are expected. No mitigation is required.

Operation and Maintenance

Less than Significant Impact with Mitigation.

230 kV Transmission Line and Substations

Potential impacts related to avian collisions with the transmission line would remain the same during operation and maintenance of the line. As with the construction phase of the Proposed Project, incorporation of MM BIO-01 and conformance to Avian Power Line Interaction Committee (APLIC) standards (MM BIO-02), Proposed Project activities are not likely to create significant increases in avian collision risk, and impacts would be less than significant.

Normal operations and maintenance at the proposed substation site would result in some increased light and machinery or rare generator noise. With the fencing of the site that is normally unattended, human presence in the area would be below current levels. With the exception of some security lighting at the substation entrances, lights would be manually operated and only used for emergency repairs and other unusual activities within the site. With the incorporation of MMs into Proposed Project operation, impacts to wildlife or other biological resources would be less than significant.

Non-native species, including Mexican fan palm, and Eucalyptus (several species), are known to occur upland and upstream of the project site. However, based on vegetation present and low flow channel limits as of early 2011, it is not expected that non-native tree species within the Santa Ana Channel crossing would establish and mature to a point that would cause a line clearance conflict during operation of the Proposed Project. Therefore, since the potential for this condition is low, no impact is expected during operation of the Proposed Project.

69 kV Subtransmission Lines

No impacts to biological resources from operations and maintenance activities for the 69 kV portion of the Proposed Project would occur because of the urban environment and compliance with existing regulatory requirements as identified in this document.

69 kV Substation Upgrades

Upgrades to existing substations under the Proposed Project would create no changes to current activities at these sites that would have significant impacts to biological resources. No impacts are expected. No mitigation is required.

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

Construction

Less than Significant Impact with Mitigation.

230 kV Transmission Line

The Proposed Project ~~could~~ has the potential to result in both temporary and permanent impacts to non-native grasslands, Delhi sands, disturbed habitat, alluvial fan scrub, Riversidian sage scrub, and wetlands. Ground-disturbing activity would include: structure installation, tower pad preparation and construction, anchor and guard installation, grading of existing and new access and spur roads, transportation, and pulling and tensioning site clearing.

With the exception of disturbed and landscaped areas, the permanent loss and temporary disturbance of native vegetation communities (Riversidian sage scrub, coastal and freshwater marsh, riparian scrub, alluvial fan sage scrub, and southern cottonwood/willow riparian) resulting from the construction of the Proposed Project would have the potential to result in direct permanent and temporary impact to native vegetation communities and habitat that has the potential to support sensitive species as presented. The Proposed Project footprints, however, would ~~not impact a significant area of any one~~ affect negligible amounts of habitat as compared to similar habitat occurring locally and regionally (less than 5 percent); see Table 3.2.4-4). No wetlands fall within preliminary project footprints. Nevertheless, removal of vegetation is an impact and could result in the loss of species diversity within the ROW, and loss of forage and cover for sensitive and common species. With implementation of MM BIO-01, impact to general wildlife and plants would be less than significant and is mitigated by habitat conservation through the MSHCP. The sensitive species that may be affected are adequately conserved and therefore mitigated through the MSHCP. The direct and indirect potential impact to common and widely occurring wildlife and plant species would not result in a change of status of affected species because the Proposed Project footprint is a less than significant (less than 5 percent) percentage of the existing habitat for these species locally and regionally. In addition to MM BIO-01, incorporation of MMs, including BIO-02 through BIO-08 and BIO-11, would reduce potential impacts to a less than significant level through habitat conservation and avoidance and minimization efforts.

69 kV Subtransmission Lines

The proposed 69 kV routes are located in mainly urbanized areas, and the Proposed Project follows city streets. A limited area of disturbed riparian habitat occurs adjacent to the Hole Creek drainage; however, as designed, this habitat would be spanned by the Proposed Project and no impacts would occur. No sensitive natural communities have been identified along the Proposed Project, thus no impacts would occur.

230 kV Substations

No riparian habitat or other sensitive natural community occurs on the proposed site, and no impact would therefore occur.

69 kV Substation Upgrades

Minor upgrades and modifications to substations that would occur under the Proposed Project would all occur within the boundaries of existing substations. These activities would all be similar in scale to normal maintenance of system components. No impacts are expected. No mitigation is required.

Operation and Maintenance

Less than Significant Impact.

230 kV Transmission Line

Vegetation trimming during maintenance over the life of the Proposed Project would result in limited impacts to native communities and potential introduction of non-native, invasive species. ~~With continued implementation of MMs BIO-06 and BIO-08, impacts would be less than significant.~~

Non-native species, including Mexican fan palm and Eucalyptus (several species), are known to occur upland and upstream of the Proposed Project site. However, based on vegetation present and low flow channel limits as of early 2011, it is not expected that non-native tree species within the Santa Ana Channel crossing would establish and mature to a point that would cause a line clearance conflict during operation of the Proposed Project. Therefore, since the potential for this condition is low, no impact is expected during operation of the Proposed Project.

230 kV Substations and 69 kV Substation Upgrades

Upgrades to existing substations under the Proposed Project would create no changes to current activities at these sites that would have a significant effect on biological resources. No impacts are expected. No mitigation is required.

69 kV Subtransmission Lines

No impacts to biological resources from operations and maintenance activities for the 69 kV portion of the Proposed Project would occur because of the urban environment and the requirement to comply with regulatory requirements as identified in this analysis.

c) Have a substantial adverse effect on federal 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.

Construction

Less than Significant Impact.

230 kV Transmission Line

Based on ~~initial preliminary engineering design data and the general footprint~~ used for this analysis, direct, permanent impacts to Waters of the U.S. (e.g., tributaries to the Santa Ana River) could result from the installation of tower and pole structure foundations. Each tubular steel pole for the proposed 230 kV transmission line requires a permanent disturbance area of approximately 380 square feet. Several poles or towers are ~~presented~~ indicated as being in proximity to ~~Waters wetlands or Wetlands~~ other jurisdictional waters. However, no Proposed Project elements overlie these areas directly. Without the inclusion of ~~the U.S. This Best Management Practices and integrated Environmental Protection Elements (particularly EPE HYDRO-01), Project construction has the potential to affect up to 0.5 acre based only on the design footprint. If implemented, this may cause a~~ temporary impacts of Waters of the U.S., as discussed in Section 3.2.8, Hydrology and Water Resources.

Direct, temporary or permanent impacts to wetlands are not anticipated because of the lack of wetlands within proposed construction areas and expected construction actions to avoid impacts; however, for the purpose of providing a “worst-case” analysis based on the preliminary Proposed Project design, some impacts could result from vegetation clearing for construction of within the proposed transmission line ROW. Conversion of a wetland is considered a permanent impact to wetland functions and values.

Based only on preliminary design data, direct, short- to long-term impacts to wetland vegetation and hydrology could result from temporary work areas (e.g., pulling and tensioning and guard structure sites) associated with construction of the proposed transmission line where it would cross ~~several small tributaries of and drainages associated with~~ the Santa Ana River. Work areas would be cleared to some extent for the safe operation of construction equipment, which could, without improper siting, adversely affect wetland vegetation. Operation of heavy equipment has the potential to cause soil compaction and rutting, which could in turn alter wetland hydrology.

Even under these conditions, impacts to wetlands would be less than significant because they would be the actual acreage of adjacent wetlands with potential to be less than 5 percent of the locally occurring habitat affected is very small and any impacts would be mitigated through replacement and land conservation through MSHCP compliance and its Determination of Biologically Equivalent or Superior Preservation (DBESP) report. Many wetlands that appear close on maps are actually below steep bluff and are elevationally separated from Proposed Project footprints. Additionally, MM BIO-10 identifies that no impact to ~~Waters wetlands or Wetlands of the U.S. other jurisdictional waters~~ will occur unless separately permitted. The mitigation to reduce the impact to less than significant requires field adjustments of work limits to avoid impact to water resources. This will include refueling restrictions (MM BIO-11) in addition to installation of standard Best Management Practices for including erosion control, and setback from mature riparian habitat (minimum of 10 feet from tree canopy for ground disturbance, parking and laydown), and refueling restrictions (BIO-10). This avoidance and minimization would reduce the potential to affect to less than significant and avoid impact. Non-wetland jurisdictional waters would not be affected by the Proposed Project.

In respect to the MSHCP and DBESP requirements as identified in Plan Section 6.1.2, the Proposed Project will not affect vernal pool habitat as none is observed to be present within or adjacent to the Proposed Project ROW and access roads. The Proposed Project will not affect

fairly shrimp habitat, as none is observed to be present within or adjacent to the Proposed Project ROW or access roads. The Proposed Project has the potential to affect Riparian ~~Riverine~~ areas. Avoidance and minimization efforts to avoid permanent impacts are feasible and will be implemented. As discussed previously, temporary impacts to some vegetation may be necessary for construction access. Sensitive habitat supporting protected or sensitive species, however, would be avoided, and no temporary or permanent impact is expected to occur for this specific DBESP resource analysis.

In sum, should field conditions require impacts to water resources and a resulting discretionary action (regulatory agency permit), then separate permitting would be required and suitable mitigation to conserve or replace affected habitat would be implemented, and the Proposed Project will prepare a DBESP report for review and approval consistent with MSHCP requirements.

As described, the proposed 230 kV portion of the Project would not directly or indirectly affect wetlands.

69 kV Subtransmission Lines

Wetlands along the 69 kV routes are associated with the Hole Lake drainage, and occur at the southern end of Hole Lake. As designed, the Proposed Project would span this wetland, and no impacts would occur. The underground portion of the 69 kV subtransmission line would not impact any waters or wetlands because the undergrounding would occur within disturbed areas and existing road ROWs.

230 kV Substations

The proposed substations site is located on an upland area with no wetlands; thus, no impacts would occur.

69 kV Substation Upgrades

Minor upgrades and modifications to substations that would occur under the Proposed Project would all occur within the boundaries of existing substations. These activities would all be similar in scale to normal maintenance of system components. No impacts are expected. No mitigation is required.

Operation and Maintenance

No Impact.

230 kV Transmission Line

Operation and maintenance of the Proposed Project would not involve removal, filling, or hydrologic interruption of wetlands.

As discussed above, potential line clearance concerns within the Santa Ana River would be addressed by hand-trimming to remove non-native tree species that may establish beneath lines. This would not change the hydrology or significantly adversely affect wetland habitat within the river channel.

230 kV Substations and 69 kV Substation Upgrades

The new substations and the planned upgrades to existing substations under the Proposed Project would create no changes to current activities at these sites that would be significant for biological resources, including wetlands. No impacts are expected. No mitigation is required.

69 kV Subtransmission Lines

No impacts to biological resources from operations and maintenance activities for the 69 kV portion of the Proposed Project would occur.

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

Construction

Less than Significant Impact with Mitigation.

230 kV Transmission Line

The Santa Ana River is a wildlife corridor. It is identified as Core Area A in the MSHCP (Jurupa and City of Riverside/Norco Planning Areas). The Proposed Project would affect the corridor during construction, and would result in limited effects to the corridor during operation and maintenance of the facility. Implementation of the Proposed Project would temporarily interfere with or impede movement of native resident or migratory wildlife species. Under the Proposed Project, the Santa Ana River would be crossed with a single 2,500 foot span with LSTs constructed outside riverine habitats. Fish movements within the Santa Ana River and its tributaries would not be affected. Movements of mammals or other terrestrial animals would be similarly unaffected. The crossing location is downstream and parallel to an existing transmission line (SCE) and would not appreciably change the flight obstacle pattern at this crossing point. As designed, the Proposed Project's river crossing span would feature a horizontal installation of conductors, reducing the vertical profile of the lines. Because of conductor spacing requirements of a 230 kV line, no electrocution risk would be presented. No substantial impediment to daily or seasonal avian movement would be presented by the Proposed Project. Additionally, MM BIO-02 requires the placement of UV reflective markers (bird diverters) on the Santa Ana River crossing conductors. This would increase line visibility and reduce collision risk. The Proposed Project would therefore not result in significant adverse interference with wildlife movement, or with the established wildlife corridor. It maintains the Core Area A linkage and does not impede or alter this wildlife corridor.

69 kV Subtransmission Lines

The proposed 69 kV routes would be located primarily within urbanized areas, along city streets which do not function as wildlife corridors. While short segments of the Proposed Project would be located adjacent to the Santa Ana River, they would be sited on high ground above the river, adjacent to industrial areas, city streets, and parking lots. As designed, the Proposed Project would not substantially interfere with the movement of any native resident or migratory species, or impede the use of native wildlife nursery sites, and no impacts would occur.

230 kV Substations

The proposed substation site is located in an industrialized area and does not function as part of a wildlife corridor. While the proposed site would be located adjacent to the Santa Ana River, it would be sited on high ground above the river. As designed, the Proposed Project would not substantially interfere with the movement of any native resident or migratory species, or impede the use of native wildlife nursery sites, and no impacts would occur.

69 kV Substation Upgrades

Minor upgrades and modifications to substations that would occur under the Proposed Project would all occur within the boundaries of existing substations. These activities would all be similar in scale to normal maintenance of system components. No impacts are expected. No mitigation is required.

Operation and Maintenance

No Impact.

230 kV Transmission Line

Operation and maintenance of the Proposed Project would require occasional access to the transmission structures, but would not involve work that would interfere with the movement of any native resident or migratory fish or wildlife species, or with established wildlife corridors or nursery sites.

230 kV Substations and 69 kV Substation Upgrades

Upgrades to existing substations under the Proposed Project would create no changes to current activities at these sites that would be significant for biological resources. No impacts are expected. No mitigation is required.

69 kV Subtransmission Lines

No impacts to biological resources from operations and maintenance activities for the 69 kV portion of the Proposed Project would occur.

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

Construction

Less than Significant Impact.

230 kV Transmission Line

The Proposed Project would cross lands along the Santa Ana River designated as Open Space-Conservation Habitat (OS-CH) by the Riverside County General Plan, ~~which precludes the construction of public facilities on lands designated as OS-CH. The Proposed Project would conflict with this policy; however, with consent of the Riverside County Regional Park and Open Space District, conflicts of the Proposed Project with this policy would be avoided through purchase of District-approved mitigation lands in an area to be determined by the District. Therefore, potential impacts resulting from any potential conflict with this policy would be less~~

~~than significant. Riverside County General Plan Amendment 1073 to Land Use Element Policy 6.2 (LU 6.2) regarding public utility uses was approved at the Planning Commission on May 13, 2009. Text associated with LU 6.2 now reads as follows:~~

~~The Proposed Project will fully comply with the MSHCP and the SKRHCP. Therefore, the Project will comply with local policies and ordinances.~~

- ~~Notwithstanding the Public Facilities designation, public facilities shall also be allowed in any other land use designation except for the Open Space-Conservation and Open Space-Habitat land use designations. For purposes of this policy, a public facility shall include all facilities operated by the federal government, the State of California, the County of Riverside, any special district governed by the County of Riverside or any city, all facilities operated by any combination of these agencies and all facilities operated by a private person for the benefit of any of these agencies.~~
 - ~~**Open Space-Conservation Habitat (OS-CH) Designation.** The Open Space-Conservation Habitat land use designation applies to public and private lands conserved and managed in accordance with adopted MSHCPs. Ancillary structures or uses may be permitted for the purpose of preserving or enjoying open space. Actual building or structure size, siting, and design will be determined on a case-by-case basis.~~
 - ~~**Multipurpose Open Space Element Policy OS 20.2.** Prevent unnecessary extension of public facilities, services, and utilities, for urban areas, into Open Space-Conservation designated areas.~~

~~As stated above, this Proposed Project component also traverses areas (9.7 acres) designated as OS-CH. The proposed 230 kV transmission line would not be consistent with the OS-CH designation. Avoidance of these OS-CH lands is not possible since they abut existing residential subdivisions to the south.~~

~~RPU and SCE will comply will all regulations and policies outlined in the MSHCP and as promulgated by the Western Riverside County Regional Conservation Authority (RCA). These include, but are not limited to:~~

- a. ~~The payment of Local Development Mitigation Fees and other relevant fees as set forth in the MSHCP;~~
- b. ~~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;~~
- c. ~~Compliance with the policies for the Protection of Narrow Endemic Plant Species set forth in Section 6.1.3 of the MSHCP;~~
- d. ~~Compliance with survey requirements as set forth in Section 6.3.2 of the MSHCP;~~
- e. ~~Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP; and~~
- f. ~~Compliance with the BMPs and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP.~~

~~Through compliance with the RCA, along with a Joint Project Review with the RCA to ensure there will be no conflict with the provisions of the MSHCP, impacts to local, regional, or State habitat conservation plans will be less than significant.~~

69 kV Subtransmission Lines

The Proposed 69 kV routes would be located along city streets and urbanized areas, and would not violate or conflict with local policies or ordinances protecting biological resources. No impact would occur.

The Proposed Project will fully comply with the MSHCP and the SKRHCP. Therefore, the Project will comply with local policies and ordinances.

230 kV Substations

The 230 kV substations are or would be located in an industrialized area, and would not violate or conflict with local policies or ordinances protecting biological resources. No impact would occur.

The Proposed Project will fully comply with the MSHCP and the SKRHCP. Therefore, the Project will comply with local policies and ordinances.

69 kV Substation Upgrades

Minor upgrades and modifications to substations that would occur under the Proposed Project would all occur within the boundaries of existing substations. These activities would all be similar in scale to normal maintenance of system components. No impacts are expected. No mitigation is required.

The Proposed Project will fully comply with the MSHCP and the SKRHCP. Therefore, the Project will comply with local policies and ordinances.

Operation and Maintenance

No Impact.

The Proposed Project will fully comply with the MSHCP and the SKRHCP. Therefore, the Project will comply with local policies and ordinances.

230 kV Transmission Line

Operation and maintenance would not conflict with any local policies or ordinances protecting biological resources.

230 kV Substations and 69 kV Substation Upgrades

Upgrades to existing substations under the Proposed Project would create no changes to current activities at these sites that would be significant for biological resources. No impacts are expected. No mitigation is required.

69 kV Subtransmission Lines

No impacts to biological resources from operations and maintenance activities for the 69 kV portion of the Proposed Project would occur.

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

As discussed above, there are two HCPs that could be impacted by the Proposed Project—the MSHCP and the SKRHCP. The Proposed Project will require an MSHCP Consistency determination requiring an assessment of specific resource areas, MSHCP requirements and applicable mitigation. These are discussed below.

MSHCP Section 6.1.2 Riparian / Riverine Habitat

The MSHCP requires an analysis of potential impacts to riparian/riverine habitat. The Proposed Project includes aerial spans of riparian habitat for several areas of the proposed route and a aerial crossing of the Santa Ana River. The aerial spans will be elevated above current tree height. It is not expected that construction will result in temporary or permanent impacts to these riparian habitats. During Operation and Maintenance, there is a potential for non-native tree species to sprout and mature within the ROW and create a conductor clearance hazard if limbs are within 10 feet of the conductor. The Proposed Project currently does not have a line conflict that would require tree trimming or removal for this crossing. In the CEQA Significance Threshold Discussion, a potential 0.5-acre impact is identified based on preliminary design drawings, but ~~subsequent design work show that~~ field construction would likely avoid these impacts by modifying work limits.

The evaluated route crosses the Santa Ana River within Criteria Cell 643. The route includes a lattice structure tower that would have a footprint on the upper banks north and south of the river. Based on design, these locations would not result in loss of native riparian habitat. The construction work limits, pull and tension sites, and facility footprint are in disturbed upland or grassland habitat.

An analysis for potential line clearance conflicts with potential vegetation within the proposed ROW was conducted in 2011 for the Santa Ana River bed crossing. A survey of trees within a 500-foot wide corridor was conducted to determine existing and mature tree height that may encroach closer than 10 feet from the conductor sag level across the river. High flows during 2010 and 2011 eroded approximately 200 feet of the south bank within the proposed crossing ROW. For the remaining riverbed area, there were no trees that presented an existing sag clearance conflict. The design, however, was adjusted and towers were designed using the tallest structure available to provide an additional 15 feet for the river crossing sag clearance. It is now not expected that a line clearance issue exists or is likely to occur during the operation phase of the Proposed Project.

In respect to the MSHCP and DBESP requirements as identified in Plan Section 6.1.2, the Proposed Project will not affect vernal pool habitat as none is observed to be present within or adjacent to the Proposed Project ROW and access roads. The Proposed Project will not affect fairy shrimp habitat, as none is observed to be present within or adjacent to the Proposed Project ROW or access roads. The Proposed Project has the potential to affect Riparian / Riverine areas. Avoidance and minimization efforts to avoid permanent impacts are feasible and will be implemented. Temporary impacts to some vegetation may be necessary for construction access. Sensitive habitat supporting protected or sensitive species, however, would be avoided, and no temporary or permanent impact is expected to occur for this specific DBESP resource analysis.

In sum, should field conditions require impacts to water resources and a resulting discretionary action (regulatory agency permit), then separate permitting would be required and suitable mitigation to conserve or replace affected habitat would be implemented, and the Proposed Project will prepare a DBESP report for review and approval consistent with MSHCP requirements.

MSHCP Section 6.1.3 Narrow Endemic Plants

Focused surveys were conducted during 2006, 2007, and 2008 to evaluate the potential of the Proposed Project area to support sensitive species, and identified narrow endemic plants (MSHCP, Riverside/Norco Planning Area). As identified in this document, several areas of the route have the potential to support sensitive plant species, but no target species were observed during the survey. Proposed Project design and requirements include preconstruction spring surveys (MM Bio-03) to confirm that no observed sensitive plant species will be affected by the Proposed Project.

MSHCP Section 6.3.2 Additional Species

The Proposed Project area supports several additional species covered by the MSHCP. These species may not be State or federal listed. No focused survey was required or conducted for any of these additional listed species. These species may be directly, indirectly or temporarily affected by the Proposed Project, similar to impacts identified for other sensitive species. The Mitigation Measures address nest protection that would reduce the potential to affect MSHCP additional sensitive avian species. Other Mitigation Measures address impacts related to non-native invasive weed species, air quality, and water quality as applicable to biological resources. The ground disturbance portions of the project would occur in primarily urbanized areas with some ruderal and agricultural areas. These types of habitat and the general project location are less likely to support the additional MSHCP species.

MSHCP Section 6.1.4 Urban/Wildlands Interface

The Proposed Project includes areas of the route parallel to the Santa Ana River, and design includes one aerial span crossing of the river channel for the 230 kV transmission line. In the vicinity of the Proposed Project, the Santa Ana River is Public/Quasi-Public Land as defined by the MSHCP. In the Proposed Project area, the river is bound by commercial land use and golf courses along the northern river bank, and residential land use and open space park land on the southern river bank. For this region, this area is considered a wildland interface. Proposed Project construction has the potential to result in short-term, temporary impacts. It is not expected that the Proposed Project would result in significant long-term permanent impacts to the value of the Santa Ana River channel and open space along the adjacent banks in respect to wildland interface. SCE operates an existing transmission line, including tubular steel poles and a cobbled access road, within the Santa Ana River bed, approximately 500 feet upstream of the Proposed Project ROW. The Proposed Project does not significantly obstruct migration or movement paths, result in discordant land use that would conflict with wildlife use, or significantly degrade the existing lower habitat value of the area. The Santa Ana River crossing would ~~include conductors placed at the same elevation across to reduce the profile area. The location is~~ be just downstream of an existing electric transmission line crossing (SCE) and would therefore not result in an appreciable new collision obstacle for avian species flying along the river channel. Mitigation Measure BIO-02 is included to reduce potential impact by the placement of aerial markers (bird diverters) on the conductors for this crossing.

The Proposed Project will also be fully compliant with the MSHCP Urban/Wildlands interface requirements per Mitigation Measure BIO-04. Any permanent impacts to conserved MSHCP-defined PQP lands from the Proposed Project would be mitigated per MM BIO-13 with a 1:1 replacement of equivalent or superior biological resources. Final permanent impact acreage would be minimized at the design level and confirmed by as-built survey or as agreed to by RPU, SCE, and RCA.

Construction

Less than Significant Impact.

230 kV Transmission Line

The Proposed Project has the potential to adversely affect several sensitive species protected by the MSHCP, and would affect criteria cells 610, 617 and 700. The 230 kV Proposed Project component will also affect Existing Core Area A, identified as the Santa Ana River wildlife corridor. The City will complete the MSHCP consistency determination process, including compliance with MSHCP sections 7.2.4 and 7.3.9 as applicable, and consult with the RCA and Wildlife Agencies as part of the Joint Project Review Process. To the extent applicable, the Proposed Project will also comply with the SKRHCP. Construction of the 230 kV line would therefore not conflict with an existing Habitat Conservation Plan.

69 kV Subtransmission Lines

The Proposed 69 kV routes would not affect any criteria cells or Existing Core Areas. Ground disturbance-related impacts discussed above would apply to the new 69 kV subtransmission lines; however, the magnitude of the ground impacts associated with installing the subtransmission lines would have minimal impacts to biological resources due to existing access roads and the fact that the Proposed Project corridor is within currently disturbed or urbanized areas.

The 69 kV subtransmission lines have the potential to affect the seven sensitive plant and eight sensitive animal species previously discussed. In general, the types of impacts associated with the construction of the 69 kV subtransmission lines would be similar to those for the 230 kV line. However, the Proposed Project area for the 69 kV portion of the Proposed Project would be in a more urbanized setting and many segments of the new lines would be essentially re-builds on existing structures. Except for a few areas near the proposed new substation site, the proposed route follows city streets. Any night construction would be limited and occur in areas already experiencing high levels of human disturbance. The extent and magnitude of effects on biological resources and the resulting impact levels would be far lower than for the 230 kV portion of the Proposed Project.

The City will complete the MSHCP consistency determination process, including compliance with MSHCP sections 7.2.4 and 7.3.9 as applicable, and consult with the RCA and Wildlife Agencies as part of the Joint Project Review Process. To the extent applicable, the Proposed Project will also comply with the SKRHCP. Construction of the 69 kV lines would therefore not conflict with an existing Habitat Conservation Plan.

230 kV Substations

The proposed substations site would not affect any criteria cells or Existing Core Areas. The City will complete the MSHCP consistency determination process, including compliance with MSHCP sections 7.2.4 and 7.3.9 as applicable, and consult with the RCA and Wildlife Agencies as part of the Joint Project Review Process. To the extent applicable, the Proposed Project will also comply with the SKRHCP. Construction of the 230 kV substations would therefore not conflict with an existing Habitat Conservation Plan.

69 kV Substation Upgrades

Minor upgrades and modifications to substations that would occur under the Proposed Project would all occur within the boundaries of existing substations. These activities would all be similar in scale to normal maintenance of system components. No impacts are expected. No mitigation is required. Construction of the 69 kV substation upgrades would not conflict with an existing Habitat Conservation Plan.

Operation and Maintenance

Less than Significant Impact.

230 kV Transmission Line

Once constructed, operation and maintenance of the Proposed Project would be required to comply with all requirements of the MSHCP.

230 kV Substations and 69 kV Substation Upgrades

Upgrades to existing substations under the Proposed Project would create no changes to current activities at these sites that would be a significant impact to biological resources. No impacts are expected. No mitigation is required.

69 kV Subtransmission Lines

No impacts to biological resources from operations and maintenance activities for the 69 kV portion of the Proposed Project would occur because of the urban environment and compliance with existing regulatory requirements as identified in this document.

Summary of Impact Determinations

Through the implementation of identified Mitigation Measures and conformance with the MSHCP, impact levels for biological resources would be maintained at the less than significant level.

Significant Unavoidable Impacts

The Proposed Project will not cause any significant unavoidable impacts to biological resources within the Proposed Project area.

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 - Habitat Assessments and Focused Plant Surveys (2008)
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3.2.5 CULTURAL RESOURCES

This section summarizes the results of a literature review, cultural resource surveys and inventories, and meetings with Native American representatives regarding cultural resources that could potentially be impacted by RTRP. The data for this analysis is presented in the confidential cultural resources technical report and in the paleontological technical report in Appendix B.

Cultural resources are districts, sites, buildings, structures, or objects considered to be important to a culture, subculture, or community for scientific, traditional, religious or other reasons. For this analysis, cultural resources have been divided into four major categories:

- **Archaeological resources**—locations where human activity has measurably altered the earth or left deposits of physical remains (e.g., stone tools, cans, bottles, milling stations, petroglyphs, pictographs, house foundations, cemeteries).
- **Architectural resources**—standing buildings (e.g., houses, schools, churches) and intact structures (e.g., canals, bridges).
- **Resources of special concern to Native Americans**—locations of former villages, sacred sites, areas of relatively undisturbed natural habitat, and traditional cultural properties, or TCPs. TCPs are resources that are important to a community's traditional practices and beliefs and for maintaining the community's cultural identity (Parker and King 1998).
- **Paleontological Resources**—remains and/or traces of prehistoric plant and animal life exclusive of humans. Fossil remains such as bones, teeth, shells, leaves, and wood are found in the geologic deposits (rock formations) within which they were originally buried. They include not only the actual fossil remains, but also the collecting localities and the geological formations containing those localities.

Under CEQA, architectural resources and archaeological sites are considered historical resources. These resources are defined as resources listed in or eligible to be listed in the California Register of Historic Resources (CRHR), any object or site that has yielded or may be likely to yield information important in prehistory, or any resource that is included in a local register (CEQA Guidelines §15064.5[1-4]). The fact that a historical resource may not be listed or eligible to be listed in the CRHR, does not preclude it from being recorded as a historical resource should an agency choose to do so.

Unique archaeological resources are exclusive to CEQA. CEQA defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that the resource provides information that answers important scientific research questions, has a special and unique quality such as the oldest of its type, or is directly associated with an important, prehistoric or historic event or person. Unique archaeological resources do not simply add to the current body of knowledge, they provide new and insightful information. A non-unique archaeological resource is not afforded any special significance and is simply defined using the definition in the above listed bulleted section. However, if an archaeological resource is not eligible to the CRHR, it does not prevent it from being a unique archaeological resource depending on whether elements of the resource fit the CEQA definition.

Although CEQA does not have a strict definition for paleontological resources, it does account for ‘unique paleontological resources’ in the impact determination section and states that destruction to this resource does constitute a significant impact, (CEQA Guidelines Appendix G). In addition, California Public Resources Code Section 5097.2 defines paleontological resources as vertebrate paleontological sites, including fossilized footprints and Section 5097.5 prohibits the destruction of paleontological resources on public lands. In addition, California AB 3180 provides guidance on mitigating and monitoring paleontological resources. As drafted, AB 3180 calls for a reporting or monitoring program “designed to ensure compliance during project implementation.”

The California Public Resources Code §21081.6 (AB 3180) requires that a lead or responsible agency adopt a Mitigation Monitoring Program (MMP) when approving or carrying out a project where an environmental document, either an EIR or a mitigated negative declaration (MND), has identified measures to reduce potential adverse environmental impacts to levels that are less than significant. RPU is the Lead Agency for the Proposed Project and, therefore, will be responsible for implementation of the MMP.

The MMP will include Standard Conditions and Mitigation Measures, all of which have been identified as measures to reduce potential adverse environmental impacts. RPU will adopt the MMP in its capacity as the CEQA Lead Agency in accordance with the provisions of CEQA (Cal. Pub. Res. Code §§21000, et seq.) and implementation guidelines (14 Cal. Code Regs. §§15000, et seq.).

Examples of mitigation measures for paleontological resources typically found in an MMP may include the following:

- Implement site-specific paleontological recovery. Identify and implement procedures to recover and preserve unknown and accidentally discovered significant fossils within the paleontologically sensitive areas. Recovery shall include: salvage of significant fossils; washing of representative samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates; preparation of recovered specimens to a point of identification and permanent preservation; identification, curation, and accession of specimens into a museum repository with permanent retrievable storage; preparation of a report of findings with an appended itemized inventory of specimens. This mitigation shall be implemented pursuant to a Paleontologic Monitoring and Recovery Plan prepared prior to construction by a qualified Principal Paleontologist, following the guidelines of the Society for Vertebrate Paleontology (1995) and submitted to the County for review and approval prior to ground disturbance.
- Monitor grading and excavation for unknown and accidentally discovered paleontological resources. A qualified paleontological monitor under the supervision of a Registered Professional Geologist shall monitor grading, trenching, and other earth disturbance that may affect the Quaternary Alluvium. If fossils are encountered, then paleontological recovery shall be carried out. All work shall be consistent with the Paleontologic Monitoring and Recovery Plan.

Human remains are not strictly defined within CEQA; however, they are included in the determination of significant impacts section CEQA Guidelines §15064.5(d-f). Within this

section, there are provisions for handling Native American remains as well as non-Native American remains. Generally human remains are understood to be the body of a deceased person in any stage of decomposition or after cremation.

The types of cultural resources most likely to be found within the RTRP area include historic trash scatters, Native American milling sites, houses and other architectural resources, and possibly resources of special concern to Native Americans along the Santa Ana River.

Regional Setting

Prehistory

The Santa Ana watershed has been occupied by Indian people for at least 12,000 years (Altschul et al. 1984). Archaeologists have divided the prehistoric timeline of Native American occupation in the Proposed Project area into six sub-periods based on changes exhibited in the archaeological record: the Paleoindian Period (12,000-9,500 years ago); Early Archaic Period (9,500–7,000 years ago); Middle Archaic Period (7,000–4,000 years ago); Late Archaic Period (4,000–1,500 years ago); Saratoga Springs Period (1,500–750 years ago); and Protohistoric Period (410–180 years ago).

Paleoindian Period (12,000-9,500 years ago)

The Paleoindian period experienced profound environmental changes, as the cool, moist conditions of the terminal Wisconsin glacial age gave way to the warmer, drier climate of the Holocene (Spaulding 1990). Paleoclimatic and paleoecological data suggest that, until about 7,500 years ago, the desert interior received moist monsoonal flow from the southeast, which resulted in the deserts having considerably higher levels of effective moisture than in the present (Davis and Sellers 1987; Spaulding 2001; Spaulding and Graumlich 1986; Van Devender et al. 1987).

The Paleoindian inhabitants were nomadic large-game hunters whose tool assemblage included percussion-flaked scrapers and knives; large, well-made fluted, leaf-shaped, or stemmed projectile points; crescents; heavy core/cobble tools; hammerstones; bifacial cores; and choppers and scraper planes. Both Warren (1968, 1980) and Wallace (1955, 1978) suggest that the absence of milling tools commonly used for seed preparation during later periods indicates that an emphasis on hunting continued throughout this phase.

No archaeological sites dating to the Paleoindian period have been identified within the Riverside area. Early human population densities were low during the Paleoindian period, and people were dispersed over the landscape primarily in small mobile groups. Within the larger region, Paleoindian sites may be found on stable landforms and in protected caves situated above floodplains in coastal, lake marsh, and valley/riparian environments, and along ridge systems and in mountain passes that served as travel routes (Moratto 1998).

Early Archaic Period (9,500–7,000 years ago)

The climatic patterns of the Late Paleoindian period continued into the Early Archaic period. The populations exploiting the interior valleys would likely have been sparse in the Riverside area and tethered to the few reliable, drought-resistant water sources that may have been destination points on a scheduled, seasonal round (Goldberg et al. 2001). In western Riverside County,

cultural deposits at archaeological site CA-RIV-6069 indicate a more intensive occupation during this period. Excavations at the site yielded flaked tools, ground stone tools, marine and terrestrial faunal remains, tools of bone and shell, and ornaments. Additionally, intact hearths and ground stone artifact caches suggest intensive use of the CA-RIV-6069 site during the Early Archaic.

Middle Archaic Period (7,000–4,000 years ago)

The Middle Archaic saw a reversal of the climatic patterns that characterized the Paleoindian and Early Archaic periods. By about 6,000 years ago, local environmental conditions improved while conditions in the deserts deteriorated (Antevs 1952; Hall 1985; Haynes 1967; Mehringer and Warren 1976; Spaulding 1991, 1995). Spaulding (2001) proposes that a westerly air flow pattern returned to southern California and, as a result, the inland areas may have become moister. The number of sites dating to the Middle Archaic increased, and the apparent increase in human use and occupation was probably related to the more hospitable local environment and the deterioration of the desert interior (Goldberg et al. 2001).

In the inland regions of southern California, this period of cultural development is marked by tools used for grinding seed for flour. Artifacts dating to this period include large leaf-shaped projectile points and knives; manos and milling stones used for hard-seed grinding; and many other artifacts, such as beads, pendants, charmstones, discoidals, spherical stones, and cogged stones (Kowta 1969; True 1958; Warren et al. 1961).

Late Archaic Period (4,000–1,500 years ago)

The beginning of the Late Archaic coincides with the Little Pluvial, a period of increased moisture in the region. This climate allowed for more intensive occupation of the area surrounding the Proposed Project area.

Late Archaic site types include residential bases with large, diverse artifact assemblages, abundant faunal remains, and cultural features, as well as temporary bases, temporary camps, and task-specific activity areas. Diagnostic projectile points of this period also include more refined notched, concave base, and small stemmed forms (Warren 1984). The technological advancement of the mortar and pestle may indicate the use of acorns, an important storable resource. The presence of *Haliotis* and *Olivella* shell beads and ornaments and split-twig animal figurines indicates that the interior California occupants were in contact with populations from the California coast as well as the southern Great Basin (i.e., eastern California, northern Arizona, Utah, and Nevada).

Saratoga Springs Period (1,500–750 years ago)

A period of even more persistent drought began about 1,600 years ago, and conditions became significantly warmer and drier although the inland areas of southern California may have been less affected than the desert interior (Jones et al. 1999; Kennett and Kennett 2000). The dry period continued until approximately 750 years ago (Spaulding 2001).

The Saratoga Springs period is marked by strong regional cultural developments, especially in the southern California desert regions, which were heavily influenced by the Hakataya (Patayan) culture of the lower Colorado River area (Warren 1984). At the Diamond Valley Lake site,

studies indicate the area was used on at least a semi-permanent basis during this period. Caches and ground stone tools suggest that people returned to the same locations. Ground stone assemblages indicate that plant processing intensified, and acorns apparently became an important staple (Klink 2001a). The faunal assemblages also show a diversifying diet, which now included medium-sized mammals.

Diagnostic artifacts include small triangular projectile points, mortars and pestles, steatite ornaments and containers, perforated stones, circular shell fishhooks, numerous and varied bone tools, and bone and shell ornaments. Elaborate mortuary customs, as well as extensive trade networks, are also characteristic of this period.

Protohistoric Period (750–180 years ago)

At the end of the Saratoga Springs period, temperatures cooled and greater precipitation ushered in the Little Ice Age, when ecosystem productivity greatly increased along with the availability and predictability of water (Spaulding 2001).

During the Protohistoric period, small but apparently fully sedentary villages formed. Many sites exhibit fire-altered rock and midden, rock ring foundations for brush dwellings, storage facilities, and ceremonial areas with rock art and rock enclosures (Horne 2001). The faunal data for this period indicate a decrease in faunal diversity, and signify a reduction in diet breadth (McKim 2001). The most striking change during this period was the local manufacture of ceramic vessels and ceramic smoking pipes. Additionally, abundant amounts of obsidian were being imported into the region from the Obsidian Butte source, located in the southeastern Salton Sea Basin and exposed by the desiccation of Lake Cahuilla.

Ethnography

Understanding which 18th and 19th century Native American groups lived in parts of southern California is complicated because some hunter-gatherer groups in the region, especially those living in the deserts, had fluid linguistic and sociopolitical boundaries or no boundaries at all. In addition, many 18th century Native American groups no longer exist. After the Spanish began colonizing coastal California in 1769, Native Americans were subject to dramatic social and cultural changes, including the establishment of the Spanish mission system and the introduction of new diseases that decimated native populations. Population declined even further during smallpox epidemics in 1863 and 1870. Modern groups that are known to have inhabited the region surrounding Riverside during the 18th and early 19th centuries include the Gabrieliño, Serrano, Luiseño, and Cahuilla.

Gabrieliño

The Gabrieliño (or Tongva) were one of the largest, wealthiest, and most powerful aboriginal groups in southern California. Their tribal territory was centered in the Los Angeles Basin, but their influence extended as far north as the San Joaquin Valley. The territory included the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; several smaller tributary streams in the Santa Monica and Santa Ana mountains; all of the Los Angeles Basin; and adjacent coastal areas.

Primary villages were occupied year-round and smaller secondary gathering camps were

occupied seasonally by small family groups. Throughout Gabrieliño territory, there may have been 50 to 100 villages occupied at any one time, with the villages containing 50 to 200 people each.

Different groups of Gabrieliño adopted different lifestyles depending on local environmental conditions, although all were based on gathering plant foods, hunting, and fishing. Villages were politically autonomous, each with its own leader. It was not until 1769 that the Spanish attempted to colonize Gabrieliño territory. As a result of disease and forced re-settlement, the population had declined dramatically by 1900.

Serrano

This hunting-gathering group lived primarily east of the Mojave River and north of San Bernardino (Bean and Smith 1978b). The Serrano were organized into local groups claiming relatively small territories. There was no larger political organization and there was no formal territory defined for the entire tribe.

Settlement was determined primarily by proximity to permanent water sources. Villages and camp sites were found most often in the foothills and less frequently on the desert floor, depending on the availability of water.

Spanish influence on the Serrano was negligible until around 1819, but by 1834 most Serrano had been forced to relocate to missions and had lost much of their traditional culture. Today, most Serrano live on the Morongo and San Manuel Reservations.

Luisiño

The Luisiño people traditionally occupied both the coast and in the interior region of southern California. Their boundaries extended along the coast from Agua Hedionda Creek to Aliso Creek. Their interior boundaries reached from the Santa Ana River and Santiago Peak to the eastern side of Elsinore Fault Valley, and south to Palomar Mountain and San Jose Valley (Bean and Shipek 1978, White 1963). Luisiño lands included three major river systems: San Luis Rey, Santa Margarita, and Santa Ana. The Santa Ana River formed this group's northern boundary with the Gabrieliños and the Serranos.

The Luisiño people lived in sedentary autonomous village groups. Each village had its own specific hunting, collecting, and fishing territories. These areas were found in valley bottoms, along streams, or along coastal strands near the mountain ranges. It was common to find villages in sheltered coves or canyons, on slopes in a warm thermal zone near adequate water supplies, and in defensive locations. Each village area was characterized with place names that were associated with important natural resources or sacred beings. Any of these places could be owned by an individual, chief, family, or a group. Some areas of activity, like trails, hunting areas, rabbit and deer drive areas, quarry sites, ceremonial areas, and gaming areas, were held in common by the community (Bean and Shipek 1978).

Cahuilla

The fourth Native American group associated with the Santa Ana River is the Cahuilla. Their territory encompasses diverse topography ranging from 273 feet below sea level at the Salton

Sink to 11,000 feet above sea level in the San Bernardino Mountains. The Cahuilla's territory extended from the summit of the San Bernardino Mountains in the north to the Chocolate Mountains and Borrego Springs in the south. Its eastern border included a portion of the Colorado Desert west of Orocopia Mountain, and its western border included the San Jacinto Plain near Riverside and the eastern slopes of Palomar Mountain.

Cahuilla villages usually were located in canyons or along alluvial fans near adequate sources of water and food plants. The immediate village territory was owned in common by a lineage group or band. The other lands were divided into tracts owned by clans, families, or individuals. Trails used for hunting, trading, and social interaction connected the villages. Each village was associated with numerous sacred sites that included rock art panels (Bean and Shipek 1978).

History

Euro-American occupation of the region began with the establishment of the California missions missionaries, continuing with the Spanish and American colonization and settlement, agricultural advances, and post-World War I and World War II.

Establishment of the California Missions

The colonization of Alta California was tied to the existing Spanish settlements along both sides of the Gulf of California. The Spanish missionization and settlement of California began in 1768 when King Carlos III saw other European empires as threats to Spain's claim on Alta California (Lightfoot 2005). The King ordered Visitador-General José de Gávez to organize soldiers and missionaries from Mexico to colonize the distant territory. On May 13, 1769 Commander Don Gaspar de Portolá, Sergeant José Francisco de Ortega, and Fray Junípero Serra, who was a Franciscan missionary, departed with soldiers and supplies for San Diego from Velicatá, Baja California. Upon arriving in San Diego, Fray Serra founded California's first mission, San Diego de Alcalá (Toupal et al. 2007).

The missions were established primarily along the coast of California and located in three distinct ranges: the Coastal Range, Transverse Range, and Peninsular Range. The Spanish selected mission sites in valleys and on alluvial fans and coastal plains away from marshy flats. Most of the missions were established close to the sea; however, some missions like Mission San Gabriel and San Jose were located strategically in the interior as a way of establishing and maintaining inland routes. Preferred locations were near reliable water sources and had adequate arable lands (Toupal et al. 2007).

The Spanish established three missions in the Peninsular Range: San Diego, San Luis Rey, and San Juan Capistrano. Each mission was located three to six miles from the ocean either in valley bottoms or on terraced slopes along streams.

The Spanish saw the Indian people as new religious converts (Dutschke 1988). According to Heizer, "Spain's Indian policy at the time of the invasion of California was a mixture of economic, military, political, and religious motives. Indians were regarded by the Spanish government as subjects of the Crown and human beings capable of receiving the sacraments of Christianity" (Heizer 1978:100). Also, "It was essential under 'missionization' that California Indians be 'reduced' into settled and stable communities where they would become good subjects of the King and children of God. It should be clear, then, that the missions of California

were not solely religious institutions. They were, on the contrary, instruments designed to bring about a total change in culture in a brief period of time” (Forbes 1969:29). The priests recruited and forced local Indian populations to work and live at the missions. The Indian people had to give up many of their traditional ways and territories for the new European practices and beliefs. They worked the mission gardens, and served as laborers at the missions and ranches. The four Native American groups along the Santa Ana River endured these changes, although their experiences differed based on their proximity to the missions (Toupal et al. 2007).

Mexican Independence

Early settlement was associated mostly with the establishment of the missions along the Pacific Coast, but began to increase as the missions went through the process of secularization, which was not complete when Mexico won its independence from Spain in 1821. The new government wanted to limit the power of the Catholic Church, so it pursued dual policies of secularization and emancipation of native groups. Between 1822 and 1829, the new government also abolished social status based on racial or national background, and granted citizenship to the native people (Haas 1995; Rader 1988; Weber 1982). The government’s secularization efforts eventually succeeded in breaking the power of the Catholic Church, but land was not returned to the native people because much of what could be used for livestock and agriculture had been granted to California and Anglo rancheros (Rader 1988).

Another change that came with the Mexican government was the removal of restrictions on trade with other countries. This change also affected trade along the Old Spanish Trail, which connected Los Angeles with Santa Fe, New Mexico. Not only did trade along this route increase, but potential settlers found a new option. As a result, immigration to California from New Mexico began in the early 1840s. The first settlers to come from New Mexico arrived in 1842. Initially, they settled at Rancho San Bernardino, also known as Politana, essentially forming an *asistencia* for the San Gabriel Mission. Within a couple of years, however, due to disagreements with the Rancho San Bernardino rancheros, the settlers relocated a few miles downstream and established Agua Mansa, near the RTRP area, northwest of CA Highway 60. They were successful in their farming endeavors and the community grew (Harley 1999).

United States’ Control of California

The United States took control of California as part of the Treaty of Guadalupe Hidalgo in 1848; however, it was the discovery of gold at about the same time that created massive population and economic growth. Initially, Native Americans mined the ore, but as news of the discovery spread, more Euro-Americans arrived and the Indians were soon forced out of mining (Dutschke 1988).

With the Americans’ arrival, the demand for water and land increased. The large ranchos were broken up, and the new landowners were less tolerant of Indian people. The small ranchos were farmed and grazed more intensively, further reducing the land and resources that provided so much of the Native American food supply. The California natives also found employment less of an option (Dutschke 1988).

Between 1850 and 1875, the population in the Santa Ana River watershed grew, though at not quite the same pace as other parts of the state. The coming of the railroad resulted in the establishment of the community of Colton just upstream, and on the opposite side of the Santa

Ana River, from Jurupa Valley/Riverside. The Agua Mansan families who still resided in the area relocated to Colton presumably to take advantage of job opportunities associated with the railroad. The greatest impact from the railroad, however, was a new wave of immigration. The Southern Pacific Railroad (SPR) in particular encouraged immigration to southern California in the late 1800s with a well-organized settlement plan that was in place by 1875 and showing a profit by 1890. The SPR's colonizing program included advertising campaigns and transportation assistance and brought another vast wave of immigrants to the area during the latter part of the 19th century (Parker 1937).

Agriculture

The agricultural economic base established by the early Spanish continued to flourish in the Riverside County area (Horne and McDougall 2007). The City of Riverside itself was founded in 1870 by abolitionist judge John W. North. Navel oranges were introduced to the region in the 1870s and were found to grow extremely well. By 1895, the citrus-based community had evolved into the richest per-capita city in the United States.

Riverside citizens founded the most successful agricultural cooperative in the world, the California Fruit Growers Exchange, known by its trademark, Sunkist (Horne and McDougall 2007). Immigrants from China, Japan, Italy, Mexico, and later the Dust Bowl of America, flooded into southern California to meet the labor demand. As a result, Riverside developed a Chinatown and other ethnic settlements, including the predominantly Hispanic Casa Blanca and communities of Japanese and Korean immigrants.

Post World War I and World War II Architecture

Riverside experienced a boom in the Post World War I period, undeveloped areas were subdivided, and residential tracts were planned and developed (Horne and McDougall 2007). The buildings from that time are represented by Arts and Crafts period styles: California Bungalow, two-story Craftsman, Prairie, and English cottage/Tudor Revival. By the end of World War I, a surge of patriotism for America and its allies produced houses in styles that referenced the American Colonial period and French, Spanish, Italian Renaissance, and English architecture. Beaux Arts Classicism reached its peak in the post World War I period in civic architecture, and Gothic Revival and Spanish Colonial Revival influenced designs for churches. The design trend for commercial buildings in Riverside continued to be based on Spanish and Classical motifs; many buildings were remodeled to reflect the Spanish Colonial Revival and Mission styles.

In the Post World War II period, Riverside experienced additional growth. Affordable suburban housing tracts were developed with nearby commercial centers to serve the needs of the new residents (Horne and McDougall 2007).

Methodology for Resource Inventory and Other Data Collection

Archival records searches for both archaeological resources and historic architectural resources were conducted for the Proposed Project and alternative for the transmission lines, as well as for the proposed new substation locations.

Archaeological Records Search

Between April 2006 and February 2011, six separate cultural resources records searches of the Proposed Project area were conducted (TRC ~~2007a-h~~2007). Collectively, the records searches provided locations and other data on previously recorded archaeological and historical resources and on previous cultural resource studies. Records were reviewed at the Eastern Information Center (EIC), housed at the University of California at Riverside, and at the San Bernardino Archaeological Information Center (SBAIC) at the San Bernardino County Museum. California Historical Resources Information System (CHRIS) records at both facilities were reviewed to determine the location of cultural resources in the study area. Also consulted for relevant properties were the National Register of Historic Places (NRHP), Archaeological Determinations of Eligibility (ADOE) provided by the EIC, the CRHR, California Historic Landmarks (CHL), California Points of Historical Interest, and the Directory of Properties in the Historic Property Data File (HDP). Historic USGS topographic quadrangles were also reviewed for the study area.

Archaeological Survey

A pedestrian field survey was conducted of the proposed 230 kV transmission line route and undeveloped portions of the proposed 69 kV subtransmission line route. During the survey, archaeologists walked parallel transects, with 10-15 m (35-50 ft) intervals, in order to locate cultural resources within or adjacent to the proposed ROW. The ground surface was visually examined for evidence of archaeological materials and potential subsurface or standing historical resources. Due to surface disturbance resulting from historic and modern use as well as dense debris from recent flooding of the Santa Ana River and other drainages and dense plant growth in many areas, ground visibility was deemed fair to poor. All visible ground surfaces, including fence lines, drainage channels, and other exposures, were examined for prehistoric and historic archaeological remains. No subsurface investigations were conducted during the survey.

A pedestrian survey of the Wildlife substation was completed by POWER Engineers, Inc. in 2011; a survey of the Wilderness substation was performed by SWCA Environmental Consultants, Inc. in 2007 as part of a separate project.

Historic Architectural Research

A review of the Historic Preservation Element of the City of Riverside General Plan 2025 was conducted to develop an understanding of the City's cultural resources and community character. The City Planning Department and Architectural Preservation Planning Services (APPS) have conducted a citywide reconnaissance survey and reviewed a variety of existing documentation relating to Riverside's Historic Preservation Program. The Historic Resource Inventory Database includes 108 City Landmarks, over 1,000 Structures of Merit, nine historic districts, three neighborhood conservation areas, and 20 NRHP properties. The database was reviewed to identify historic resources within the Proposed Project area. Riverside County does not have a comparable database of historic resources.

The City of Norco does not have a city register of historic districts and buildings. There are some buildings within the city, i.e., the Norconian Resort, that are on the National Register, but none of these buildings are located near the Proposed Project area. The City is listed by the State as a Certified Local Government (CLG); it has a Historic Preservation Commission; and is currently developing a plan to create a city registry of historic properties dated 1900 to 1950.

Architectural Inventory

In 2007 and 2008, URS Corporation conducted a reconnaissance architectural inventory within or in the vicinity of the ROW of the Proposed Project. The route was compared to maps of historic districts and neighborhoods prepared by the City of Riverside Planning Division. This analysis was designed to identify areas of increased potential for containing structures 50 years old or older, as the corridors do not pass through exclusively historic neighborhoods. Riverside County does not have an architectural database. The City of Norco does not have a city register of historic districts and buildings at this time.

For the 69 kV subtransmission line portion of the Proposed Project, given the number of buildings and structures present within the developed neighborhoods, detailed documentation was not conducted. Rather, the study was designed to note the variety of structures present within neighborhoods, the overall integrity of neighborhoods, and the potential for impacts to potential historic districts. Photographs were taken of representative buildings older than 50 years.

Native American Coordination

In May 2006, the California Native American Heritage Commission (NAHC) was contacted regarding Native American groups that might have historic ties to, and interest in, the Proposed Project area. In December 2006, the City of Riverside sent scoping letters to various tribes identified by the NAHC, and in January 2007, the City sent the Notice of Preparation (NOP) and Initial Study for RTRP to the tribes.

In April and May 2007, the City was assisted by the University of Arizona's Bureau of Applied Research in Anthropology (BARA), which arranged meetings and site visits with three of the groups identified by the NAHC: the Soboba Band of Luiseño Indians, Pechanga Band of Mission Indians, and Morongo Band of Mission Indians (Toupal et al. 2007). The goal of the meetings and site visits was to identify portions of the Proposed Project area that are of special importance to Native American groups. Site visits were brief and tribal representatives emphasized that their observations about cultural sensitivity of particular locations were preliminary (Toupal et al. 2007). A copy of the draft American Indian Social Impact Assessment was provided to these three groups.

Subsequently, the Ramona Band of Cahuilla Indians and the Gabrieleño/Tongva Tribal Council of San Gabriel were also contacted by the City, but there were no additional site visits or formal meetings.

In November 2009, the City prepared a second NOP for RTRP, and sent it to tribes on the NAHC list.

NAHC again provided a list of tribes to be contacted in a letter dated December 9, 2009.

In December 2010, a certified letter was sent to the Soboba, Pechanga, Morongo, Ramona, and Gabrieliño/Tongva regarding recent updates to the Proposed Project and alternatives. The Rincon Band of Mission Indians did not appear on previous letters provided by the NAHC (June, 2006 or December, 2009). Therefore, a letter containing pertinent project information was sent to

the Rincon Band of Mission Indians on January 18, 2012. As of February 2012, only the Soboba Tribe has and Rincon Band of Mission Indians have responded to this letter these letters (see Appendix H of this DEIR).

Additional letters to Tribes on the NAHC list updating them on RTRP were sent by RPU on April 16, 2012.

Paleontological Records Search

A review was conducted of relevant published geologic reports, paleontological reports, and unpublished museum paleontological locality data from the Division of Geological Sciences at the San Bernardino County Museum and Department of Paleontology at the San Diego Natural History Museum. This approach was followed in recognition of the direct relationship between paleontological resources and the geologic formations within which they are entombed. Knowing the geology of a particular area and the fossil productivity of particular formations that occur in that area, it is possible to predict where fossils will, or will not be encountered.

Environmental Setting

Under CEQA, lead agencies are required to consider potential impacts on historical resources, unique archaeological and paleontological resources, and buried human remains. Information on known historical resources and unique archaeological resources within the Proposed Project area is discussed in this section. The terms are defined in the Regulatory Setting sections.

No buried human remains have been previously recorded in the Proposed Project area and none were found during the pedestrian surveys. All NRHP and CRHR eligibility determinations expressed within this analysis were provided via the EIC. For the purposes of this analysis, sites that have been determined eligible to the NRHP are also considered eligible to the CRHR.

Throughout the planning process for RTRP, numerous route alternatives were identified and eliminated for a variety of reasons, including public concerns, sensitive habitats, visual impacts, constructability, input from Native Americans, existing land use, and others. The routes considered in the DEIR were not defined until June 2010. A combination of data from previously recorded cultural resources and data collected during intensive pedestrian surveys in 2007, 2008, 2009, 2010 and 2011 are sufficient to characterize the existing environment and to assess impacts to cultural resources. Sixty-three percent of the proposed 230 kV transmission line route and 100 percent of undisturbed (undeveloped) areas of the proposed 69 kV subtransmission line route was surveyed. Due to factors such as asphalt parking lots, existing built environments such as shopping centers, massive flood debris along the Santa Ana River, and lack of right of entry, 37 percent of the 230 kV line was not surveyed.

Moreover, approximately 50 percent of the Proposed Project area has been previously inventoried for cultural resources by projects ranging from small linear surveys to large intensive pedestrian inventories. Few cultural resources have been previously recorded within 100 feet of the centerlines of the routes. The records searches conducted by TRC in 2006 and the 2008 updated search by POWER indicate that 345 cultural resources have been previously recorded within one mile of the various routes under consideration in this DEIR as well as routes that have been eliminated. The record searches also indicate that a total of 314 cultural resource studies have been conducted within a one-mile radius of the various 230 kV and 69 kV routes and

substations currently or previously under consideration.

~~Six~~Eight previously recorded sites have been identified within the proposed ROWs of the 69 kV line and the 230 kV line. Of these, two qualify as historical resources using the below-listed CEQA definitions; the ROW of a transmission line that crosses the 230 kV line in three places and the Pedley Power Station and associated features. For this analysis, unevaluated sites, of which there are two (a historic canal system on the 230 kV line and a historic residence on the 69 kV line), are assumed to be eligible until otherwise determined. These sites are discussed in some detail below.

Paleontological resources are likely to be found in geologic units consisting of Older Quaternary Alluvium. Older Quaternary Alluvium generally consist of the remains of Pleistocene Epoch fossil land mammals such as bison, mammoth, mastodon, horse, camel, and others. All of these animals were killed and eaten by prehistoric Native Americans. These geologic units are considered to have a high sensitivity for paleontological resources because of fossil land mammal remains recovered in areas north of the Proposed Project Area. These units are largely located along the 69kV line with minor occurrences along the 230kV line. Although no recorded fossil localities have been reported within the Proposed Project Area, there is potential for them based on the distribution of Older Quaternary Alluvium throughout the Proposed Project Area and especially along the 69 kV portion.

230 kV Transmission Line

Intensive and systematic pedestrian surveys for cultural resources were conducted between 2007 and 2011 on public and portions of private land for which landowner consent was acquired within the ROW along this corridor. Sixty-three percent of this line has been surveyed using the previously mentioned method. Due to factors such as asphalt parking lots, existing built environments such as shopping centers, massive flood debris along the Santa Ana River, and lack of right of entry, 37 percent of the 230 kV line was not surveyed. As stated previously, a combination of data from previously recorded cultural resources and data collected during intensive pedestrian surveys in 2007, 2008, 2009, 2010 and 2011 are sufficient to characterize the existing environment and to assess impacts to cultural resources. Mitigation measures are proposed below to ensure that any unanticipated discovery of cultural resources is addressed in such a way to mitigate impacts to the resources to the greatest possible extent.

~~Six~~Eight recorded cultural resources were identified within 50 feet of the centerline of the proposed 230 kV transmission line. Of these, two are eligible for listing to the NRHP, ~~two~~four are unevaluated, and two are not eligible for listing to the NRHP or CRHR. Based on recent analysis, one of the unevaluated sites has been re-evaluated to be a feature of the ineligible site and has been included on the updated site form for that site, thus reducing the total number of identified cultural resources to ~~five~~seven. The NRHP-eligible O Line transmission line crosses the proposed route in three locations. This linear cultural resource extends far outside the Proposed Project area and there are intact poles and other features elsewhere. All that remains of the O Line in Riverside County is the original ROW, as all poles, remnants of poles, and other components have been removed. During the 2011 survey, this resource was not re-recorded because the portions of the proposed 230 kV transmission line that would cross the O Line are on parcels of land for which the landowner did not grant right of entry. ~~One~~Three of the ineligible resources ~~is a~~are prehistoric milling stations. The proposed transmission line would cross directly

over ~~this site~~ these sites. Current line design includes spanning ~~this site~~ these sites; no poles would be placed ~~there~~ within them. During the 2011 survey, ~~this site~~ one of the sites was re-recorded and an updated site form was completed; ~~the other two sites were not relocated during the survey.~~ One of the eligible sites, the Pedley Power Station and associated features, is still intact and an updated site form was completed in 2011. The other unevaluated site consists of the remains of a 1915 canal system; however, during the 2011 survey, it was noted that the portion of the site that the proposed 230 kV line would cross has been destroyed and replaced with the paved Santa Ana River Trail. This was noted on an updated site form in 2011.

Another ineligible site is a canal, dam, and pump house associated with the historic Hole Ranch and Hole Lake. When it was visited in 2011, an updated site form was completed. This site was determined by SHPO to be not eligible to be listed to the NRHP or CRHR as of October 2007.

69 kV Subtransmission Lines

In 2008, undeveloped portions of the proposed ROW for this line were surveyed for archaeological resources and all of the proposed ROW was surveyed for architectural resources. No archaeological sites were located and only one architectural resource was located within the ROW of the Proposed Project, as discussed below. No Structures of Merit or City Landmarks are located within the ROW of the Proposed Project.

RERC to Harvey Lynn/Freeman Substations

The portion of Segment A along Doolittle Avenue between Jurupa Ave. and Morris Ave. will be underground. There is one previously recorded cultural resource, the yard of which is located within the ROW of the 69 kV subtransmission line in this segment of the Proposed Project. The site was recorded in 2003 as a 1960s-era residence and was considered unevaluated for listing in the NRHP or CRHR at the time of recordation. Generally, cultural resources less than 50 years old are considered ineligible to the National Register unless they are of exceptional importance.

Wilderness Substation to Mountain View Substation

In 2009, this segment of the 69 kV line was surveyed and no new or previously recorded cultural resources were documented in the ROW.

Wilderness Substation to Jurupa Ave

In 2009, this segment of the 69 kV line was surveyed and no new or previously recorded cultural resources were documented in the ROW.

Wildlife/Wilderness 230 kV Substations

In 2007, a pedestrian cultural resource survey of the initial design location of the proposed Wilderness substation location (SWCA 2008) was conducted and no sites were located. In 2011, the Wildlife addition to the proposed substation location was surveyed and no new archaeological sites were located.

69 kV Substation Upgrades

Upgrades to all four substation sites (Mountain View, Freeman, Harvey Lynn, and RERC) will include activities limited to already disturbed acreage, which currently house substations. There

are no previously recorded cultural resources located on the RERC Substation. The Freeman and Mountain View substation locations have never been surveyed for cultural resources. The Harvey Lynn substation is in an area that had an inventory of architectural resources, but not of archaeological resources. No cultural resources have been identified at any of these locations.

Regulatory Setting

The following laws and regulations define the federal, State, and local management policies for cultural resources within the Proposed Project area.

Federal

The Proposed Project is not currently defined as a federal undertaking. However, compliance with federal regulations will be required by the National Park Service for lands administered under the Land and Water Conservation Fund (LWCF).

National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321-4346) establishes national policy for the protection and enhancement of the environment. The essential purpose of NEPA is to ensure that environmental factors are weighted equally when compared to other factors in the decision-making process undertaken by federal agencies prior to approval any major federal action. The act establishes the national environmental policy, including a multidisciplinary approach to considering environmental effects in federal government agency decision-making. The act is implemented by the Council on Environmental Quality (CEQ) regulations at 40 CFR 1500-1508.

National Historic Preservation Act

The National Historic Preservation Act (NHPA), as amended (16 USC 470f), is the principal federal law in the United States protecting cultural resources. Section 106 of the NHPA directs all federal agencies to take into account the effects of their undertakings (i.e., actions, financial support, and authorizations) on properties included in or eligible for the NRHP.

Advisory Council on Historic Preservation (ACHP) regulations at 36 CFR part 800 implement Section 106 of the NHPA. These regulations establish the NRHP as a planning tool to help federal agencies evaluate cultural resources in consultation with the relevant State Historic Preservation Office (SHPO) and the ACHP. The criteria for determining whether cultural resources are eligible for listing in the NRHP is provided in 36 CFR 60.4.

State

California Environmental Quality Act

For this analysis, the principal law relevant to the protection of cultural resources at the state level is CEQA, with particular reference to California Public Resources Code 21083.2 to 21084.1, which addresses historic resources, archaeological resources, and Native American graves.

According to Section 15064.5 of CEQA Guidelines, a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a

significant effect on the environment. Lead agencies are required to identify any historic resources that may be affected by any undertaking involving state or county lands, funds, or permitting. In addition, the significance of such resources that may be affected by the undertaking must be evaluated using the criteria for listing on the CRHR (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852). Generally, a resource shall be considered by the lead agency to be historically significant if the resource has integrity and meets the criteria for listing on the CRHR. Resources already listed or determined eligible for the NRHP or the CHL are also by definition eligible for the CRHR. Historic resources included in historic resource inventories prepared according to California State Office of Historic Preservation (OHP) guidelines (and thus included in the State Inventory of Historical Resources) or designated under county or city historic landmark ordinances may be eligible if the designation occurred during the previous five years.

For a resource to be eligible for the CRHR, it must satisfy each of the following three standards:

- A property must be significant at the local, state or national level, under one or more of the following criteria:
 1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States.
 2. It is associated with the lives of persons important to the nation or California's past.
 3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
 4. It has yielded, or may be likely to yield, information important to the prehistory or history of the State or the Nation.
- A resource must retain enough of its historic character or appearance to be recognizable as a historic property, and to convey the reasons for its significance; and
- It must be fifty years old or older (except for rare cases of structures of exceptional significance).

Integrity is defined as “the authenticity of a historic resource’s physical identity, evidenced by the survival of characteristics that existed during the resource’s period of significance.” CRHR regulations specify that integrity is a quality that applies to historic resources in seven ways: location, design, setting, materials, workmanship, feeling, and association.

To be eligible to the CRHR or NRHP, a resource must possess several, and usually most, of these aspects.

Location. Location is the place where the historic property was constructed or the place where the historic event occurred. Integrity of location means that the resource has not been moved from its original location.

Design. Design is the combination of elements that create the form, plan, space, structure, and style of a property. Design results from conscious decisions made during the original conception and planning of the property. Integrity of design means that a building or structure’s original plan, shape, and design elements remain intact.

Setting. Setting is the physical environment of a historic property. Setting refers to the character of the place in which the property played its historical role. Setting may include topography, vegetation, simple man-made features, and relationships between buildings, other features, and open space. Integrity of setting means that the surrounding landscape has changed very little since the period of importance for the resource.

Materials. Materials are the physical elements that were combined or deposited during a particular period and in a particular pattern or configuration to form a historic property. Integrity of materials means that the resource's original building materials remain intact.

Workmanship. Workmanship is the physical evidence of the crafts of a particular culture or people during a period in history or prehistory. Examples can include tooling, carving, painting, turning, and joinery. Integrity of workmanship means that evidence of the craft and skills of the artisans who created the resource are still present.

Feeling. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. Feeling results from the presence of physical features that, taken together, convey the property's historic character. Integrity of feeling means the resource retains a link to and is able to evoke an earlier time and place.

Association. Association is the direct link between an important historic event or person and a historic property. Integrity of association means the resource retains a link to an earlier time and place and conveys the link between the event or activity and the place where it occurred.

Under CEQA, the lead agency must also determine whether a proposed project will have a significant effect on unique archaeological resources. PRC 21082.2(g) states that a:

“ ‘unique archaeological resource’ means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person”

A non-unique archaeological resource does not meet these criteria and does not need to be given further consideration other than simple recording unless it happens to qualify as a historical resource.

California Senate Bill 18 of 2005 (SB 18)

This bill requires formal government-to-government consultation with Native American tribes as part of a project that enacts or amends a general plan or specific plan. RTRP does not fit this description because it does not require any general plan or specific plan amendments, so SB 18 does not apply.

Regional and Local

Riverside Municipal Code Title 20 - Cultural Resources

The purpose of this title is to promote public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic or artistic value in the City for the following reasons.

Riverside Municipal Code Title 20 sets forth guidelines for safeguarding the heritage of the City as well as definitions of landmarks, structures of merit, historic districts, neighborhoods conservation areas, cultural resource overlay zones, as well as mitigation measures and specific maintenance guidelines for each property type. Under this Code, the City has also established a Cultural Heritage Board which assists in managing and overseeing cultural resources within the City limits.

Historic Preservation Element of the City of Riverside General Plan 2025

The purpose of this preservation element is to provide guidance in developing and implementing activities that ensure that the identification, designation, and protection of cultural resources are part of the City's community planning, development, and permitting processes. The SHPO has recognized Riverside's historic preservation program with its designation as a Certified Local Government. Riverside's Historic Preservation Program has established many goals, including a program of community education. The City Planning Department and APPS have conducted a citywide reconnaissance survey and reviewed a variety of existing documentation relating to Riverside's Historic Preservation Program.

City of Norco Municipal Code, Title 20, Cultural Resources

The purpose of this title is to promote the public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic or artistic value in the City of Norco.

City of Norco Municipal Code Title 20 sets forth guidelines for protecting the heritage of the City, for designation of landmarks and points of historical interest, for issuing certificates of appropriateness, and for preservation incentives.

City of Norco Municipal Code, Title 2, Chapter 26, Historic Preservation Commission

This title establishes the Historic Preservation Commission for the City of Norco.

City of Norco General Plan Land Use Element

In the Land Use Element of the General Plan for the City of Norco, one of the goals (2.7, Historical Resources) is to "preserve from development to the extent possible, the city's historical and archaeological resources." Policies include identifying and preserving the unique historical buildings that significantly identify and establish the community's history and

character, and identifying and cataloguing any archaeological resources, and taking measures to preserve those resources that are considered unique and significant.

The Multipurpose Open Space Element of the Riverside County General Plan 2008

This chapter sets forth policies for managing and reporting cultural resources, historic resources, and paleontological resources found on county property. Open Space (OS) Policies 19.2-19.4 address cultural resources, policies OS 19.5-19.7 address historic resources, and policies OS 19.8-19.10 address paleontological resources.

Impact Assessment

Significance Threshold Criteria

A project is considered to have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource. Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired or diminished. Furthermore, it is recommended by CEQA that all cultural resources be preserved *in-situ* whenever possible through avoidance of the resource. Whenever a historical resource or unique archaeological resource (Public Resources Code §21083.2) cannot be avoided by project activities, effects shall be addressed and mitigated as outlined in PRC §15126.4 and §15331 of CEQA.

Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- d) Disturb any human remains, including those interred outside of formal cemeteries?

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.5-1 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to cultural resources. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion. For sites of concern to Native Americans, implementation of EPEs listed in Table 3.2.5-1 may reduce residual impacts to less than significant. However, residual impacts could be determined to be low following on-site monitoring by Native Americans, other participation by tribal representatives, and tribal review of archaeological records.

TABLE 3.2.5-1. ENVIRONMENTAL PROTECTION ELEMENTS – CULTURAL RESOURCES

Environmental Protection Element	Description
CUL-01	Avoid or minimize impacts to significant cultural resources. Ground disturbance or other impacts to each identified cultural resource would be avoided or minimized, unless the resource has been determined to be ineligible for the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). Avoidance measures could include project redesign, flagging of site boundaries during construction, use of buffer zones, and construction monitoring.
CUL-02	Establish and maintain a protective buffer zone around each recorded cultural resource within or immediately adjacent to the ROW or access and spur roads. A protective buffer zone would be established around each recorded archaeological site and treated as an “environmentally sensitive area” within which construction activities and personnel would not be permitted, unless the archaeological site has been determined to be ineligible for the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR).
CUL-03	Evaluate the significance of all cultural resources that cannot be avoided. Evaluation studies would be conducted and documented as per applicable laws, regulations, and guidelines of the CRHR and NRHP.
CUL-04	Minimize impacts to significant cultural resources that have not been previously evaluated and that cannot be avoided. All ground-disturbing activities would be minimized within the bounds of unique archaeological sites, historical resources, or historic properties. Historical resources and unique archaeological resources where impacts cannot be reduced or minimized will be treated through the implementation of CUL-05. Minimization measures will include pre-construction identification of the most sensitive parts of sites and construction monitoring.
CUL-05	Construction Monitoring and Unanticipated Cultural Resources Discovery Plan. Prior to construction, a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan would be prepared. Resource identification and assessments for eligibility of the resource for listing in the CRHR will be consistent with the California Office of Historic Preservation standards. The plan would detail procedures for avoidance and mitigative data recovery.

Mitigation Measures

Specific mitigation measures (see Table 3.2.5-2) would be applied to reduce potentially significant impacts related to cultural and paleontological resources.

TABLE 3.2.5-2. MITIGATION MEASURES – CULTURAL AND PALEONTOLOGICAL RESOURCES

Mitigation Measure	Description
MM CUL-01	A cultural resource inventory will be conducted of any changes to the Proposed Project area or of any properties for which right of entry was not granted prior to any disturbance. All surveys shall be conducted and documented as per applicable laws, regulations, and guidelines. The surveys will be completed to identify any previously unidentified cultural resources. Any discovered resources would be avoided through Project features (EPEs) or mitigated through MM CUL-02.
MM CUL-02	To avoid and/or minimize impacts to significant cultural resources, a qualified archaeologist will monitor ground disturbing activities near previously identified cultural resources. If a newly identified cultural resource or an unknown component of a previously identified resource is discovered during construction, the monitor will follow the Unanticipated Discovery Plan identified in EPE CUL-05. The monitor will have the authority to stop or redirect work, as required to fulfill mitigation measure CUL-02. In addition, any human remains discovered during Project activities will be protected in accordance with current state law as detailed in California <u>Health and Safety Code 7050.5</u> and California <u>Public Resources Code Sections 5097.91</u> and <u>5097.98</u> , as amended.

Mitigation Measure	Description
MM CUL-03	A qualified paleontological monitor shall attend any pre-construction meetings at locations that have high potential for containing intact paleontological resources to consult with grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. The paleontological monitor shall work under the direction of a qualified paleontologist. A qualified paleontologist is defined as an individual with an M.S. or PhD in paleontology or geology, or closely related field, who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of Southern California, and who has worked as a paleontological mitigation project supervisor in the region for at least one year.
MM CUL-04	A qualified paleontological monitor shall spot-check the original cutting of previously undisturbed deposits of high paleontological resource sensitivity (e.g., Older Quaternary Alluvium). The paleontological monitor shall work under the direction of a qualified paleontologist.
MM CUL-05	When significant fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for the recovering of small fossil remains, such as isolated mammal teeth, it may be necessary to recover bulk sedimentary matrix samples for off-site wet screening. However, some fossil specimens (such as complete large mammal skeletons) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) should be allowed to temporarily direct, divert, or halt earthwork activities to allow recovery of fossil remains in a timely manner.
MM CUL-06	Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and cataloged as part of the mitigation program.
MM CUL-07	Prepared fossils, along with copies of all pertinent field notes, photos, maps, and measured stratigraphic sections, shall be deposited (as a donation) in a scientific institution with permanent paleontological collections, such as the Western Center for Archaeology and Paleontology, the San Bernardino County Museum, or the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support for initial specimen cataloguing and storage.
MM CUL-08	A final summary report shall be completed that outlines the results of the <u>paleontological mitigation program</u>. This report shall <u>be prepared under the supervision of a qualified paleontologist. The report will include a description and maps of the Project area; descriptions of paleontologically sensitive or fossiliferous sediments in the Project vicinity; discussions of the methods used during monitoring and during fossil recovery; descriptions and illustrations of the stratigraphic section(s) exposed, fossils collected, and including taxonomic data; photographs of the locations of recovered fossils; an assessment of the significance of recovered fossils; the recovered fossils; complete contextual data from the fossil locality, including sedimentology and taphonomy; and a record of accession of the fossils to the selected repository, including specimen numbers.</u>

Environmental Impacts

A project results in impacts to a cultural resource eligible for the NRHP/CRHR when it alters the resource's characteristics, including relevant features of its environment or use, that qualify it for eligibility. As mentioned earlier, for the purposes of this analysis, all unevaluated sites are considered eligible until otherwise determined or recommended. Potential impacts could include:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property from, or alteration of, the character of the property's setting when that character contributes to the property's significance;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect of a property resulting in its deterioration or destruction

Potential impacts of a transmission line on cultural resources would generally be related to either

physical damage (e.g., ground disturbance at an archaeological site caused by an access road or transmission structure) or changes in the visual setting (e.g., a transmission line disrupting the view of a NRHP/CRHR-eligible historic ranch). Physical disturbance could potentially impact all three classes of cultural resources. A change in visual setting would rarely be an issue for archaeological resources, but could be significant for some architectural resources and some sites of concern to Native Americans.

Cultural resources within the Proposed Project area are subject to both direct and indirect impacts. Direct impacts would result from ground disturbing activities associated with the construction of the transmission and subtransmission lines such as clearing vegetation, grading of new access roads, improving existing access roads, installing tower foundations, assembling and erecting structures, stringing and tensioning conductors, and restoration and re-vegetation measures.

Direct impacts to paleontological resources occur when earthwork activities, such as mass grading operations, utility line trenching activities, or utility pole boring excavations cut into the geological deposits within which fossils are buried. Since fossils are the remains of prehistoric animal and plant life they are considered to be nonrenewable. Such impacts can be damaging or destructive and require mitigation under CEQA Guidelines.

Direct visual impacts result when highly visible modern structures such as transmission lines affect the visual setting of cultural resources that are NRHP/CRHR eligible because they retain their visual prehistoric or historic context.

Cultural resources can also be subject to indirect impacts. For example, indirect access-related impacts may occur to cultural resources when public accessibility is increased to a previously remote area because of new or improved roads. Uncontrolled recreational use, overland vehicle travel, and vandalism of cultural resources degrade the integrity of these resources and can affect their eligibility to the NRHP or CRHR. Access-related impacts would not occur because the Proposed Project and alternative are located in an urbanized setting.

In those limited areas where impacts are potentially significant, immitigable, and unavoidable, some impacts could be reduced to less than significant if the Project's lines were undergrounded. However, as discussed in detail in Chapter 6 (Alternatives), undergrounding even limited sections of the Project as a means of potential mitigation is infeasible. While undergrounding may reduce some of the Project's potentially significant cultural impacts, the overall environmental impacts caused by undergrounding would be greater and, as such, it is not considered a feasible mitigation measure for the Proposed Project. Specifically, undergrounding requires substantially more excavation than overhead structures. This level of ground disturbance would require several times more heavy equipment than overhead construction. Complete ground disturbance along the line (or sections) would make it difficult or impossible to avoid sensitive areas, such as wetlands and stream crossings—particularly in the area where the Project crosses the Santa Ana River. In addition, vegetation restoration options are much more limited for undergrounding as opposed to the currently proposed Project. This is because vegetation growing over an underground line would need to support heat dissipation and prevent root intrusion into the lines. Further, during future repairs of an underground line, entire sections between vaults, approximately 2,000 feet apart, may require re-excavation. Undergrounded portions within the Santa Ana River corridor would be prone to washouts during a flood event,

requiring re-installation. These considerations equate to increased environmental impacts to air quality, agricultural resources, biological resources, cultural resources, and geologic and water resources, as impacts would be inflicted again and again during any future repairs or wash-out incidents. Further, outages would be prolonged on the underground line, due to poor accessibility and time required in identifying the failure location, excavating the underground line, and correcting any outage. Also, economic considerations associated with undergrounding show that undergrounding is infeasible as a mitigation measure, even for more limited sections of the Project, as discussed in Chapter 6. In all, then, undergrounding even a limited portion of the Project as a means of potential mitigation is both infeasible and environmentally more damaging than the currently proposed Project's overhead lines.

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project would result in significant impacts to historical resources, unique archaeological resources, unique paleontological resources, or human remains.

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than significant with mitigation.

230 kV Transmission Line

The O Line transmission line, also known as the Southern Sierras Power Line, in Riverside County is eligible to the CRHR and qualifies as a historical resource. However, only the ROW remains; there are no ~~physical attributes~~ transmission structures, conductors, or features ~~other facilities~~ remaining within Riverside County, although these do survive in San Bernardino County. Because the 230 kV transmission line would not affect any physical features ~~other than~~ and merely span the ROW, there would be no physical or visual impact to the primary elements of this line that contribute to its significance. However, because it is eligible to the CRHR, the CEQA preferred mitigation measure is to avoid the resource by line design. If Project redesign does not completely eliminate impacts to the site, then MM CUL-02 would be implemented to reduce impacts to a less than significant level in the unlikely event of an unanticipated discovery related to this resource.

If any potential future adjustments or changes to the Proposed Project area are proposed that have not been surveyed for cultural resources, they would have to be surveyed as required (MM CUL-01). This mitigation measure would require a cultural resource inventory of any design change of the Proposed Project area be conducted prior to any disturbance. All surveys would be conducted and documented as per applicable laws, regulations, and guidelines. Depending on the results of the surveys, other mitigation measures would be implemented to reduce residual impacts to less than significant, with avoidance of the resource being given first priority.

The ineligible site is the dam and pump house remains associated with the historic Hole Ranch and Hole Lake and the additional canal feature added in 2011. Because this site is not eligible for listing to the NRHP or CRHR, it will not be impacted by the Proposed Project and therefore no mitigation measures will need to be implemented.

The Pedley Power Station was recently evaluated and recommended eligible for listing to the CRHR based on its association with a person of local significance, William E. Pedley, and its

connection to early settlement in the area. The site was originally recorded in 1987 and included the power station, spillway, and associated features. The integrity of various components of the site is limited. All of the equipment has been removed from the interior of the power station, leaving only the building; the spillway has been damaged by natural erosion and a horse trail; many of the features have filled with soil; and the slope along a wall of the power station has begun to slump into the building. In addition, Greenwood notes that this facility resembles those constructed at the turn of the century in the upper Santa Ana Canyon, making this particular example one of many rather than significant on its own (Greenwood 1991). Even though the integrity of ~~various~~some components ~~is questionable~~has been questioned, the site as a whole is still eligible because of its local significance in relation to Pedley and early agriculture and settlement of the area.

Current line design would avoid the power station, but there is a proposed underground telecommunication line that could potentially impact the concrete spillway upslope from the power station. ~~However, the portion of the spillway where the line could cross has limited integrity due to the effects of natural erosion as well as the continued use of the location as a horse trail.~~

The integrity of the visual setting of the power station has already been compromised by several existing transmission poles and structures and transmission lines that currently span the site. While the transmission line would be visible from the power station, there would be no visual impact, because there are several existing lines intruding upon the visual setting.

~~Therefore, because the spillway has limited integrity and there are visual impacts from multiple existing transmission lines, impacts to the Pedley Power Station site from the Proposed Project would not be considered significant. However, Because of the aforementioned associations with W. Pedley and early settlement, its eligibility, the Pedley Power Station is eligible to be listed in the CRHR would remain the same, regardless. There is a potential for physical impacts at the location of impacts the spillway. As necessary, EPE CUL-04 would be incorporated to reduce potential impacts to the site. Impacts that could not be avoided would be mitigated to a less than significant level through implementation of MM CUL-02.~~

~~Although The Cantu-Galleano Winery, an NRHP has been listed property, is located near the Proposed Project area, it is 0.37 mile outside of the northern end of the Proposed Project end point. An existing transmission line parallel to as a historic district in the NRHP since 2003. The district is along Wineville Road, on which the property is located, is directly across the road from the in Mira Avenue and includes eight buildings:~~

- The original low-scale wood frame winery and as a result, the visual integrity of the resource may already be compromised. The building (ca. 1900)
- The large concrete block main winery property is surrounded by warehouses building (1947-1949)
- A board and distribution centers, as noted in a visit to the property in 2011. Because of existing modern disturbances, batten barn (ca. 1900)
- A small wood frame guesthouse (ca. 1930)
- A wood frame bunkhouse/office (ca. 1920)

- A concrete block vinegar shed/tank (ca. 1942)
- A wood frame tasting room/workshop (ca. 1942, remodeled in 1976 and 1980)
- A wood frame garage (ca. 1942).

All of these buildings except the ~~distance of the resource~~ tasting room/workshop retain a high level of integrity.

The Cantu/Galleano residence and two smaller homes were excluded from the district due to extensive alterations. Also, there are numerous modern storage sheds and garages for the winery's equipment that do not contribute to the district's historic character.

The building complex is bordered on the west and south by a 160-acre parcel of agricultural land, but this land is not part of the NRHP district. Rather, the area included within the boundary of the district totals only 1.8 acres in the northeast corner of the 160-acre parcel, an area that includes the eight buildings described above.

The landscaping surrounding the buildings includes a variety of mature trees, lawns, and other plantings. Two-lane Wineville Road originally divided two portions of the winery building complex, but the road was vacated and realigned to avoid these historic buildings. Today, Wineville Avenue is a five-lane road on the east side of the district; old Wineville Road serves only to provide access to the winery.

Other than the 160 acres of agricultural land, the surrounding landscape has been substantially altered in recent years. Interstate 15 is 2,200 feet due west of the district. A Wal-Mart Distribution Center is 160 feet north of the district, and a truck parking lot is within 40 feet north of the district boundary. Other large warehouse buildings are 785 feet to the northeast, 170 feet to the east, 1,070 feet to the southeast, and 2,500 feet to the south.

Along the southern edge of the agricultural parcel, 2,150 feet south of the district, is the existing SCE Mira Loma – Vista #1 transmission line, including a lattice structure. The northern terminus of the proposed ~~Project, there~~ RTRP 230 kV line would ~~be~~ tap into the existing Mira Loma – Vista #1 line at this location and would not require a new lattice structure.

Because of the existing nearby industrial development, the presence of an existing lattice structure for the Mira Loma – Vista #1 transmission line, and the fact that the RTRP 230 kV transmission line would use this existing lattice structure rather than a new one, RTRP would have no ~~impacts to this property~~ visual impact on the historic character of the NRHP-listed Cantu-Galleano Winery.

69 kV Subtransmission Lines

One cultural resource has been documented to be partially within the ROW of the eastern side of the 69 kV component on the corner of Acorn Ave and Jurupa Ave. The property was recorded in 2003 as a 1960s-era residence. The western edge of the yard is along the centerline and the house is within 45 feet of the centerline. NRHP criteria for evaluation of cultural resources state that properties that have achieved significance within the past 50 years shall not ordinarily be considered eligible, unless they have exceptional importance (e.g., associated with a major event in recent history). CRHR criteria for evaluation of historical resources provide a slightly different

guidance on historical resources achieving significance within the past 50 years. CRHR states that “in order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource” [California Code 4852.d(2)]. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance. Although the house is probably less than 50 years old, it was recorded because it was considered one of the last houses of this age and type along Jurupa Avenue (SWCA 2003). Given its age, it is questionable whether sufficient time has passed for this resource to be considered eligible under CRHR criteria. Even if this site were to be found eligible, it is along the existing transmission line, and the Proposed Project would not have an impact. The 69 kV line would go underground along a portion of Segment A, beginning at the eastern side of the intersection of Jurupa Ave. and Van Buren Blvd. The line would be tunneled below Van Buren and continue underground along Doolittle Ave. to the intersection with Morris Ave. No cultural resources were documented along this portion of the route. No mitigation measures would need to be implemented.

RERC Substation

The RERC Substation upgrade will include activities limited to already disturbed acreage which currently houses a substation. The same previously recorded historic 1960s residence which is located along the proposed 69 kV subtransmission line is also approximately 700 feet southwest of the RERC substation. It is currently unevaluated; however, NRHP criteria for evaluation of cultural resources state that properties that have achieved significance within the past 50 years shall not ordinarily be considered eligible, unless they have exceptional importance (e.g., associated with a major event in recent history). CRHR criteria for evaluation of historical resources provides a slightly different guidance on historical resources achieving significance within the past 50 years. CRHR states that “in order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource” [California Code 4852.d(2)]. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance. Although the house is probably less than 50 years old, it was recorded because it was considered one of the last houses of this age and type along Jurupa Avenue (SWCA 2003). Given its age, it is questionable whether sufficient time has passed for this resource to be considered eligible under CRHR criteria. Even if this site were to be found eligible, it is not located within the already disturbed acreage of the substation, and the upgrades to the RERC substation should not have an impact. No mitigation measures would need to be implemented.

b) Cause substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than significant with mitigation.

230 kV Transmission Line

As mentioned earlier, ~~one~~ three of the ineligible resources ~~is~~ are prehistoric milling ~~station~~ ~~stations~~. One of the sites is currently located directly beneath the centerline of the proposed transmission line; however, current line design spans the drainage in which ~~the site~~ it is located. ~~The~~ This site is part consists of a boulder, which has been heavily painted with graffiti; however,

the milling station is still intact, despite the modern disturbance and recent flooding. Because the site is ineligible, there will be no impacts to this site. No mitigation measures for cultural resources would need to be implemented in this location. = The other two milling sites were not relocated.

One cultural resource, a historic canal, within the ROW was unevaluated for NRHP or CRHR eligibility on the original site form. However, during the 2011 survey, the site was visited and it was discovered that during construction of the Santa Ana River Trail, the portion of the site that the proposed 230 kV transmission line would cross was destroyed and replaced with the Trail. Because this portion of this site has been destroyed, there would be no impacts to this site. No mitigation measures for cultural resources would need to be implemented in this location.

Wildlife/Wilderness Substations

Results from the pedestrian surveys indicated that there were no cultural resources located within the proposed substation property. Therefore, there would be no impacts to cultural resources at the Wildlife and Wilderness substations. No mitigation measures for cultural resources would need to be implemented in this location.

Mountain View, Harvey Lynn, and Freeman Substations

The Freeman and Mountain View substation locations have never been surveyed for cultural resources. The Harvey Lynn substation is in an area that had an inventory of architectural resources, but not of archaeological resources. No cultural resources have been identified at any of these locations. As with the RERC Substation, Freeman, Mountain View, and Harvey Lynn Substations are upgrade locations, not locations for new substations. Therefore, all activities associated with the upgrade would take place on already disturbed ground. Because the area of impact at each location is already disturbed, any cultural resources that ever existed there would have been destroyed in the past. Therefore, there would likely be no impacts to cultural resources.

If there are any potential future adjustments or changes to the Proposed Project area that have not been surveyed for cultural resources, they would have to be surveyed as required (MM CUL-01). This mitigation measure would require a cultural resource inventory of any design change of the Proposed Project area be conducted prior to any disturbance. All surveys would be conducted and documented as per applicable laws, regulations, and guidelines. Depending on the results of the surveys, other mitigation measures would be implemented to reduce impacts to less than significant. If Project redesign does not completely eliminate impacts to a significant cultural resource, then MM CUL-02 would be implemented to utilize a qualified archaeologist to monitor ground disturbing activities, stop or redirect work, and implement the Unanticipated Discovery Plan. Impacts would be reduced to a less than significant level.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant with mitigation.

230 kV Transmission Line

Sensitivity for paleontological resources and unique geologic features along this line is for the

most part low; however, there are portions along the east to west trending section of the line that are considered high sensitivity formations or Older Quaternary Alluvium. This type of geologic formation has a higher likelihood of containing fossils of large mammal species that were among the food sources of prehistoric Native Americans. Construction in these areas would include, but not be limited to, drilling large-diameter boreholes and grading. To reduce impacts, MM CUL-03 through CUL-08 would be implemented. MM CUL-03 directs a qualified paleontological monitor to coordinate with grading and excavation contractors prior to ground disturbance in areas of high likelihood of fossil material and defines required experience and training of qualified persons. MM CUL-04 directs monitoring of high sensitivity strata. MM CUL-05 and 06 protect discovered paleontological resources through a program on recovery, salvage, material preparation, and cataloging. MM CUL-07 preserves material and all records through deposition in a permanent collection at a scientific institution. MM CUL-08 reports on results of the entire paleontological mitigation program. Taken together, MM CUL-03 through 08 would reduce impacts to a less than significant level.

Wildlife/Wilderness Substations

Wildlife Substation is a zero sensitivity formation so there would be no impacts to paleontological or geologic features in this area.

69 kV Subtransmission Lines and Substation Upgrades

Over 50 percent of these lines is considered to have high sensitivity for Older Quaternary Alluvium. As these areas would include drilling of small diameter boreholes for the wooden or steel poles, impacts to the identified high sensitivity geologic units would be high. However, implementation of MM CUL-03 through CUL-08, and specifically MM CUL-04, would reduce impacts to less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant with mitigation.

No buried human remains have been previously recorded or discovered during recent surveys for this Proposed Project and, as such, no impacts to this type of resource are anticipated; however, should human skeletal remains be discovered at any time during implementation of the Proposed Project, construction in the vicinity will halt and the Coroner will be contacted immediately (per California Public Resources Health and Safety Code 7050.5). If the Coroner determines that the remains do not require an assessment of cause of death and are probably Native American, then the NAHC will be contacted to identify the most likely descendents. Also, California Public Resources Code 5097.98 would be implemented according to the requirements of the regulation and pursuant to Mitigation Measure CUL-02.

Significant Unavoidable Impacts

There are no potentially significant unavoidable impacts.

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3.2.6 GEOLOGY AND SOILS

Information in this discussion is derived from the “Earth Resources Technical Report” (POWER Engineers, Inc. and Kleinfelder, March 2010~~7~~) and clarifications and further explanation by POWER Engineers, Inc. made in response to public comments on the DEIR.

Methodology for Resource Inventory and Other Data Collection

Existing geologic conditions in the area were evaluated from a review of available published and unpublished literature, current aerial photographs from the Riverside County Flood Control and Water Conservation District, the City of Riverside General Plan, online photos, and limited site reconnaissance. Descriptions of geologic units were derived from published sources from the California Geological Survey, United States Geological Survey (USGS), professional organizations, and academic resources.

Environmental Setting

The project area is Regional Geology

Over the last ten million years, climate in the Riverside region has fluctuated between cold and warm, wet and dry. The time period from the present back approximately 11,000 years is the Holocene Epoch that marks the transition from the last ice age to our current drier conditions. The Pleistocene Epoch extends from approximately 11,000 years before present (b.p.) to 1.6 million years b.p. (Bryant and Hart 2007). The Holocene Epoch is preceded by the Pleistocene Epoch. During the Pleistocene Epoch, prehistoric animal species that are known to have lived in the region include the American lion, saber-toothed cat, prehistoric bison, and mammoth. Portions of the 230 kV study corridors are underlain by Pleistocene age alluvial soils (Dibblee 2004). Because of the relative age of this alluvium, there are potentially fossil-bearing localities within the study areas. Paleontological resources are addressed in Section 3.2.5, which precedes this section.

The 230 kV and 69 kV study corridors, Wildlife Substation, Wilderness Substation, and 69 kV substation upgrades are situated within the north central Peninsular Ranges Geomorphic Province of California. This geomorphic province is characterized by a series of mountain ranges separated by northwest trending valleys, sub-parallel to branching faults from the San Andreas fault (CGS, 2002). The San Andreas fault is considered to be the boundary of the crustal Pacific tectonic plate and the North American plate (CGS, 2002). Sub-parallel faults to the San Andreas fault ~~which~~ that make up the San Andreas fault zone include the Newport-Inglewood fault, Elsinore fault zone, San Jacinto fault, and eastern California shear zone (CGS, 2002). The Peninsular Ranges Province extends approximately 900 miles from the Transverse Ranges southward to the tip of Baja California, Mexico (Norris and Webb, 1990). ~~The project area is considered to be geologically active and is exposed to some risk from geologic hazards, such as ground shaking and ground failure due to earthquakes.~~ 1990).

The northern part of the Peninsular Ranges Province is divided into three major fault-bounded blocks named the Santa Ana Mountains, Perris Block, and the San Jacinto Mountains (Norris and Webb 1990). The Santa Ana Mountains block is the westernmost of the three, extending from the Pacific coastline eastward to the Elsinore Fault zone. Bedrock of this block includes Tertiary sedimentary rock in the western part to basement assemblages of Mesozoic metasedimentary and Cretaceous volcanic and batholithic rocks.

The central portion of the Peninsular Ranges, east of the Santa Ana Mountain block and west of the San Jacinto fault zone, is the Perris Block. This roughly rectangular area has relatively low topographic relief underlain by metasedimentary rocks intruded by plutons of the Cretaceous age Peninsular Ranges Batholith. Generally the bedrock within the study corridors consists of quartz diorite plutonic rock.

The San Jacinto Mountains block lies east of the Perris block and is bounded on the west by the San Jacinto fault and on the east by the San Andreas fault. Most of the San Jacinto Mountains block is underlain by a thick section of Pre-Cretaceous metasedimentary rocks that were intruded by Cretaceous age granite rocks of the Peninsular Ranges Batholith.

Alluvium, colluvium, and slope-wash deposits of late Pleistocene and Holocene times are found within existing drainage features, including valleys and streams. The alluvial deposits grade indiscernibly with colluvium and slope-wash deposits that generally flank the lower slopes adjacent to the valleys. These deposits are lithologically variable and generally reflect the local source material from which they were derived. Generally, the alluvial deposits within the study corridors consist of Pleistocene fluvial and/or fan deposits and Holocene fluvial deposits in the active Santa Ana River flood plain.

The dominant natural drainage course that crosses the study corridor area is the Santa Ana River channel. The Santa Ana River basin covers approximately 2,450 square miles, with the headwaters beginning in the San Bernardino and San Gabriel Mountains and outlets into the Pacific Ocean in Newport Beach (SCGS 1978). The Santa Ana River channel enters the study area in Colton at an approximate elevation of 930 feet above MSL and exits the area near Norco at approximate elevation 630 feet above MSL.

Project Area Geology

The 230 kV transmission line study corridors cross three main different geologic units. From youngest to oldest they are: Holocene age – artificial fill, recent alluvial deposits, windblown deposits, and slope wash (map units: Qaf, Qya, Qye, Qyw, Qw, and Qyf5 age); Pleistocene age – older alluvial deposits (map units: Qoa, Qof, Qof1, Qof3, Qow, Qvoa and Qvof); and Cretaceous age – quartz diorite and/or gabbroic type bedrock (map units: Kcg, Kdqd, Kgb, Kqd, Krg, Pzq and Pzsgp).

There are two 69 kV subtransmission line study corridors. The Wilderness – Mountain View 69 kV subtransmission line study corridor crosses two different geologic units. From youngest to oldest they are: Pleistocene age – older alluvial deposits (map unit: Qof3); and Cretaceous age – igneous quartz diorite bedrock (map unit: Kqd). The RERC-Harvey Lynn/Freeman 69 kV subtransmission line corridor crosses three predominant geologic units. From youngest to oldest they are: Holocene age – artificial fill, young alluvial fan, and slope wash deposits (Qaf, Qya, Qyf, Qyw, and Qw); Pleistocene age – older alluvial deposits (Qof3, Qts); and Cretaceous age – gabbro, quartz diorite, granite, and tonalite bedrock (Kgb, Kqd, Krg, and Kt).

The sites for the Wildlife Substation and Wilderness Substation are both underlain by Cretaceous age quartz diorite bedrock.

Three of the four substations to be upgraded (Harvey Lynn, Mountain View, and RERC) are underlain by older alluvium. The fourth substation to be upgraded (Freeman) is underlain by young alluvium.

The geology within and adjacent to the 230 kV and 69 kV transmission line corridors are shown on Figures 3.2.6-1 and 3.2.6-2, respectively.

Geohazards

Geologic processes that result in geologic hazards include: surface rupture, ground shaking (seismicity), ground failure, landslides, mudflows, subsidence of the land, liquefaction, tsunamis, seiches, and flooding due to failure of dams and levees. Because the study area is generally considered to be geologically active, most of the study corridors and substations would be exposed to some risk from geologic hazards.

Figures showing the geohazards within and adjacent to the 230 kV and 69 kV transmission line corridors are located at the end of the Earth Resources Technical Report in Appendix B.

Seismic Hazards

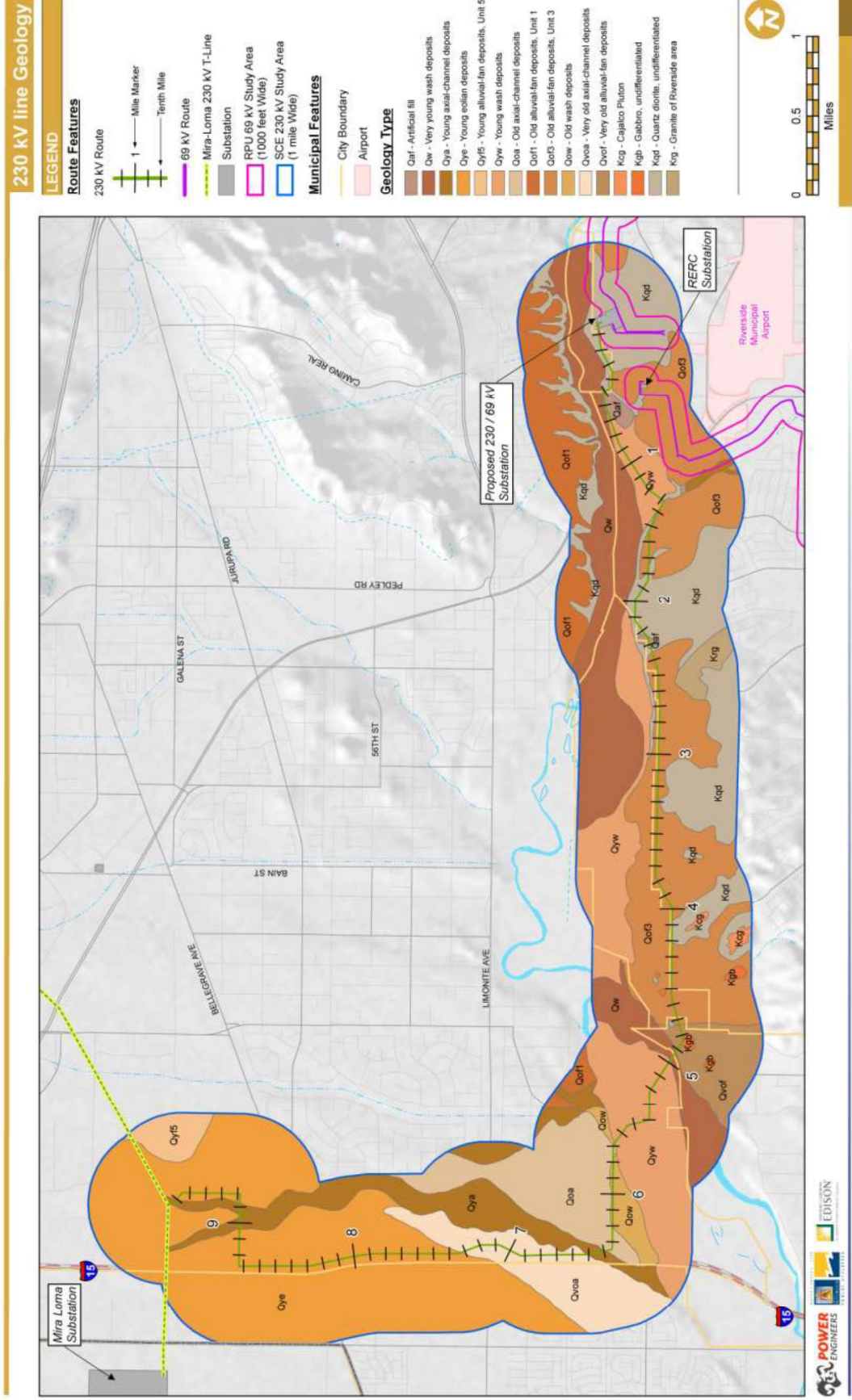
Surface ruptures are the displacement and cracking of the ground surface along a fault trace. Surface ruptures are visible instances of horizontal or vertical ground displacement, or a combination of the two, typically confined to a narrow zone along a fault. The effects of ground shaking, the actual ground motion during an earthquake, can vary widely across an area and depend on such factors as the earthquake intensity and fault mechanism, duration of shaking, soil conditions, type of structure and other factors.

Within California, active faults are considered to be those having displacement within the Holocene Epoch, or approximately the last 11,000 years (CGS 2007). Areas within the vicinity of active faults are subject to regulation under the Alquist-Priolo Earthquake Fault Zoning Act of 1973. Locations of the active faults are available from the CGS. Observation of the most current CGS maps indicate that no portions of the study area are included within or cross an Alquist-Priolo Earthquake Fault Zone designated by the State. ~~Most of the project area is located along relatively level ground and away from steep slopes, except for portions along the boundaries of the Santa Ana River floodplain. Generally, the steep slopes along the Santa Ana River expose granite bedrock, which is not prone to landslides or debris flows. Wildlife Substation and Wilderness Substation are underlain by granitic bedrock and are not prone to liquefaction or settlement, or subject to ground deformation due to a large seismic event on one or more of the active faults in the regions.~~ This means that surface rupture due to faults mapped in the current Alquist-Priolo zones are not anticipated, although the area may be affected by other seismic hazards such as ground shaking.

The San Andreas Fault trends along a roughly northwest/southeast alignment and is located approximately 16.2 miles northeast of the northeastern-most 230 kV study area. The San Andreas Fault zone delineates the boundary between two global tectonic plates known as the North American Plate and Pacific Plate. The San Andreas Fault is the largest fault structure contained within a system of numerous subsidiary faults. The three closest active subsidiary faults are the Elsinore Fault (approximately 6.3 miles from the westernmost 230 kV study corridor, approximately 7.3 miles from the western-most 69 kV corridor and approximately 11.2

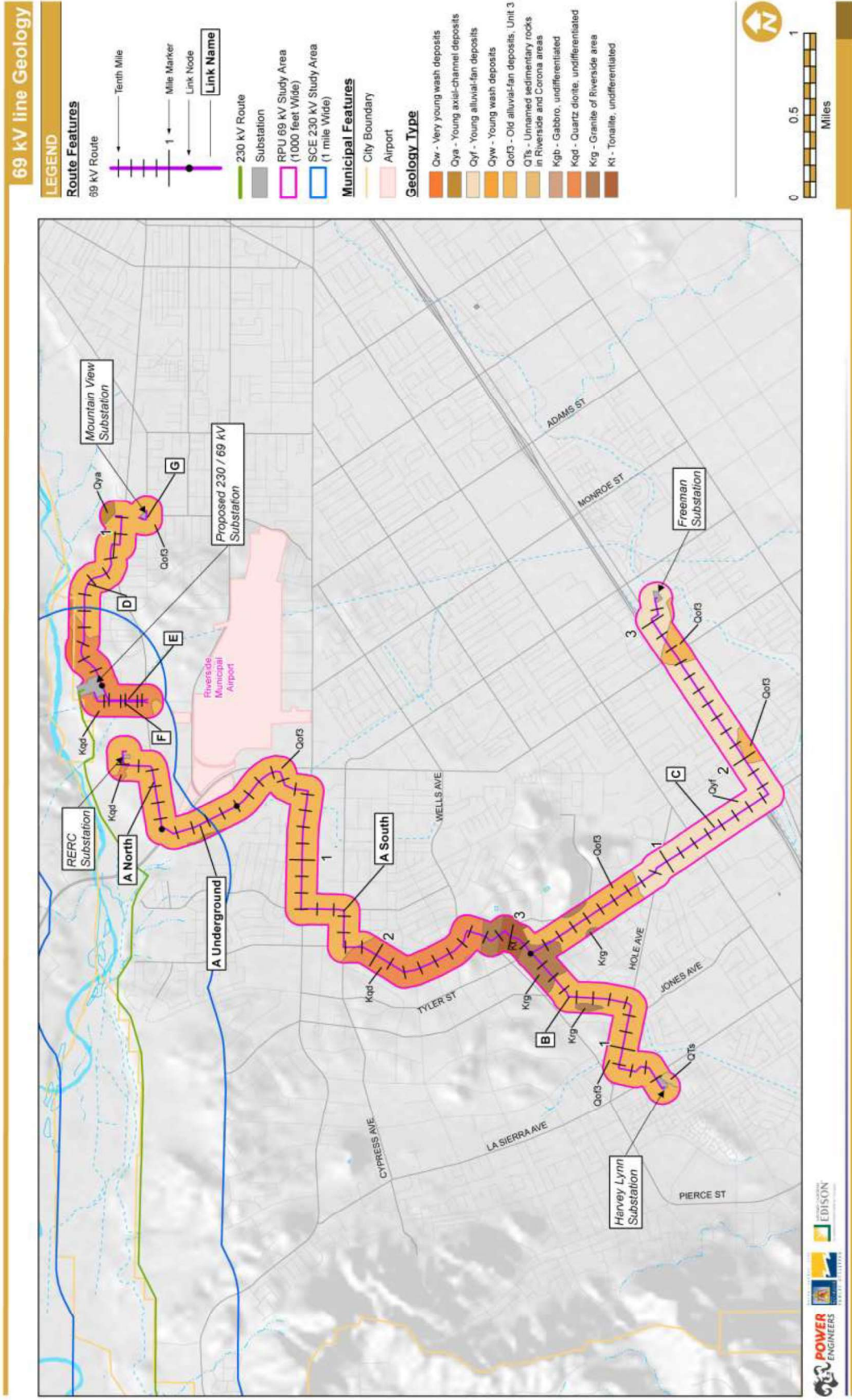
miles west of the Wildlife and Wilderness substation sites); the Cucamonga Fault (approximately 10.1 miles from the northern-most 230 kV corridor); and the San Jacinto Fault (approximately 11.0 miles from the northeastern-most 230 kV corridor at the Wilderness substation, approximately 10.5 miles from the northeastern-most 69 kV corridor).

FIGURE 3.2.6-1. GEOLOGY OF THE 230 KV TRANSMISSION LINE CORRIDOR



RIVERSIDE TRANSMISSION RELIABILITY PROJECT

FIGURE 3.2.6-2. GEOLOGY OF THE 69 KV SUBTRANSMISSION LINE CORRIDORS



RIVERSIDE TRANSMISSION RELIABILITY PROJECT

Secondary Seismic Hazards/Seismic-Related Ground Failure

The potential for seismic-induced ground failure impacts is present where alluvial deposits and shallow groundwater conditions are present. Liquefaction is a phenomenon in which loose, saturated, granular soil deposits lose shear strength and mobilize as a result of increased pore water pressure induced by strong ground shaking during an earthquake. Structures founded on or above potentially liquefiable soil may experience settling (both total and differential) and loss of foundation support. The factors known to influence liquefaction potential include soil type, grain size, relative density, confining pressure, shallow depth to ground water, and the intensity and duration of ground shaking. Soils most susceptible to liquefaction are saturated, loose, sandy soils and some silty soils.

The potential exists for seismic-related ground failure for the proposed 230 kV and 69 kV transmission lines and the four substations to be upgraded. The Wildlife and Wilderness substations are underlain by bedrock and would not be susceptible to this hazard.

Landslide Hazards

Landslides and mudflows are the downslope movement of soil and/or rock under the influence of gravity. Landslide and mudflow processes are influenced by factors such as thickness of soil or fill over bedrock, steepness and height of slope, physical properties of the fill, soil or bedrock materials, and moisture content. Mudflows can also occur when loose surficial deposits become saturated during periods of heavy rainfall and during flash flooding in ephemeral drainages near steep hillsides. Mudflow hazards typically increase significantly after loss of vegetation cover by fires or grading. These factors may increase the effective force of gravity upon a slope, decrease the ability of a slope to resist gravitational influences, or result in a combination of the two, which can lead to mudflows and landslides.

Potential slope instability impacts are present within the proposed 230 kV and 69 kV transmission lines and the four substations to be upgraded. The Wildlife and Wilderness substations are underlain by bedrock and would not be susceptible to this hazard.

Project Area Soils

Soil development is reflective of source material, climate, and duration of weathering. In general, the soils in the Project area are derived from relatively local sources, for example bedrock or alluvial deposits. The bedrock parent material has a great influence on the resulting soil. Most of the Project area and vicinity is underlain by coarse grained igneous intrusive rock, like granite, that weathers to sandy soils with few organics.

Physical characteristics of soils along with interaction of environmental factors such as wind, groundwater and surface water runoff determine soils' susceptibility to erosion and expansion. Soil characteristics resulting from provenance factors are available from the U.S. Natural Resources Conservation Service (NRCS) database. NRCS compiles extensive records on soil group characterization data. The physical and chemical profiles available in the NRCS database are very useful in estimating the sensitivity of a soil to disturbance caused by construction or agricultural activities.

Relevant soil data was obtained from the NRCS Soil Data Mart and compiled in GIS. Figures

showing the distribution of soil types along the 230 kV and 69 kV alignments are included as Figures 3.2.6-3 and 3.2.6-4, respectively. The data originates from the NRCS State Soil Geographic (STATSGO) database.

Soil Related Hazards

The soil resource assessment is intended to provide technical information to identify and assess risks due to soil erosion and expansive soils. The requirements for evaluation of soil hazard risks per the CEQA Guidelines include assessment of: (1) potential for substantial soil erosion or loss of topsoil; and (2) expansive soils.

Three attributes were used to characterize soil properties in connection with the hazard analysis. Susceptibility to erosion by wind and water was assessed by using the K_w factor and Wind Erodibility Group (WEG) attributes, respectively, and expansion potential was assessed by using American Association of State Highway and Transportation Officials (AASHTO) soil groups. A discussion of each of these soil attributes follows.

K_w – Water Erosion Factor

K_w indicates the susceptibility of a whole soil to sheet or rill erosion. Factor K is one of several factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average rate of soil loss by sheet or rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter, and on soil structure and permeability. The entire range of K_w values is from 0.02 to 0.69. In general, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. The K_w values within the Project area range from 0.15 to 0.64. For purposes of this study, the K_w data were subjectively assigned these relative descriptors:

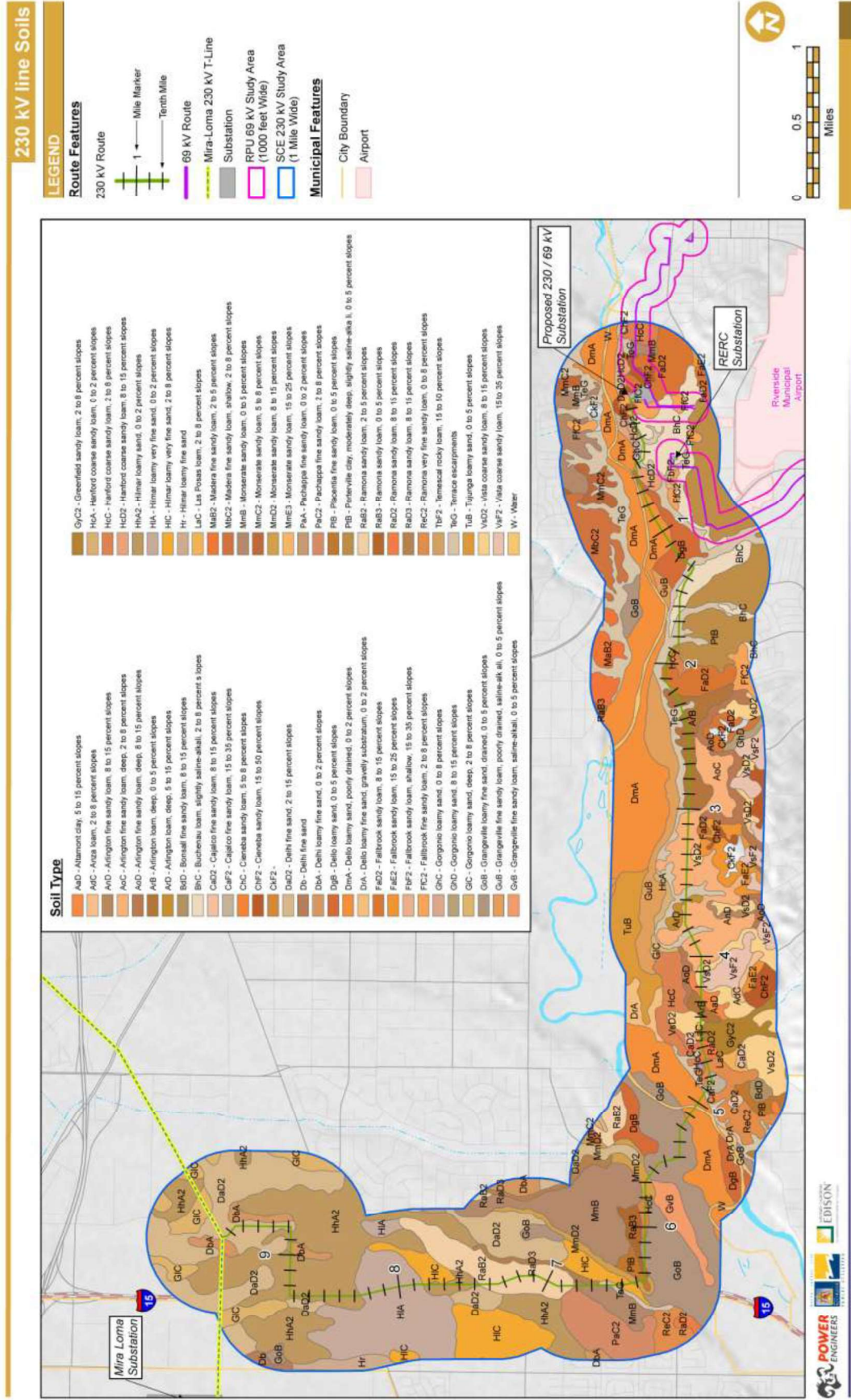
<u>K_w Range</u>	<u>Descriptor</u>
<u>0.10 – 0.20</u>	<u>Least Susceptible</u>
<u>0.24 – 0.32</u>	<u>Moderately Susceptible</u>
<u>0.37 – 0.64</u>	<u>Most Susceptible</u>

WEG – Wind Erodibility Group

The WEGs comprise soils having similar properties affecting their susceptibility to wind erosion in cultivated areas. The WEGs range from 1 to 8. Soils assigned to Group 1 are most susceptible to wind erosion, and those assigned to Group 8 are least susceptible to wind erosion. There is a close correlation between wind erosion and surface layer texture, the size and durability of surface clods, rock fragments, organic matter, and calcareous cements. Soil moisture and frozen soil layers also influence wind erosion. For purposes of this study, the WEG data were subjectively assigned these relative descriptors:

<u>WEG</u>	<u>Descriptor</u>
<u>1 – 2</u>	<u>Most Susceptible</u>
<u>3 – 6</u>	<u>Moderately Susceptible</u>
<u>7 – 8</u>	<u>Least Susceptible</u>

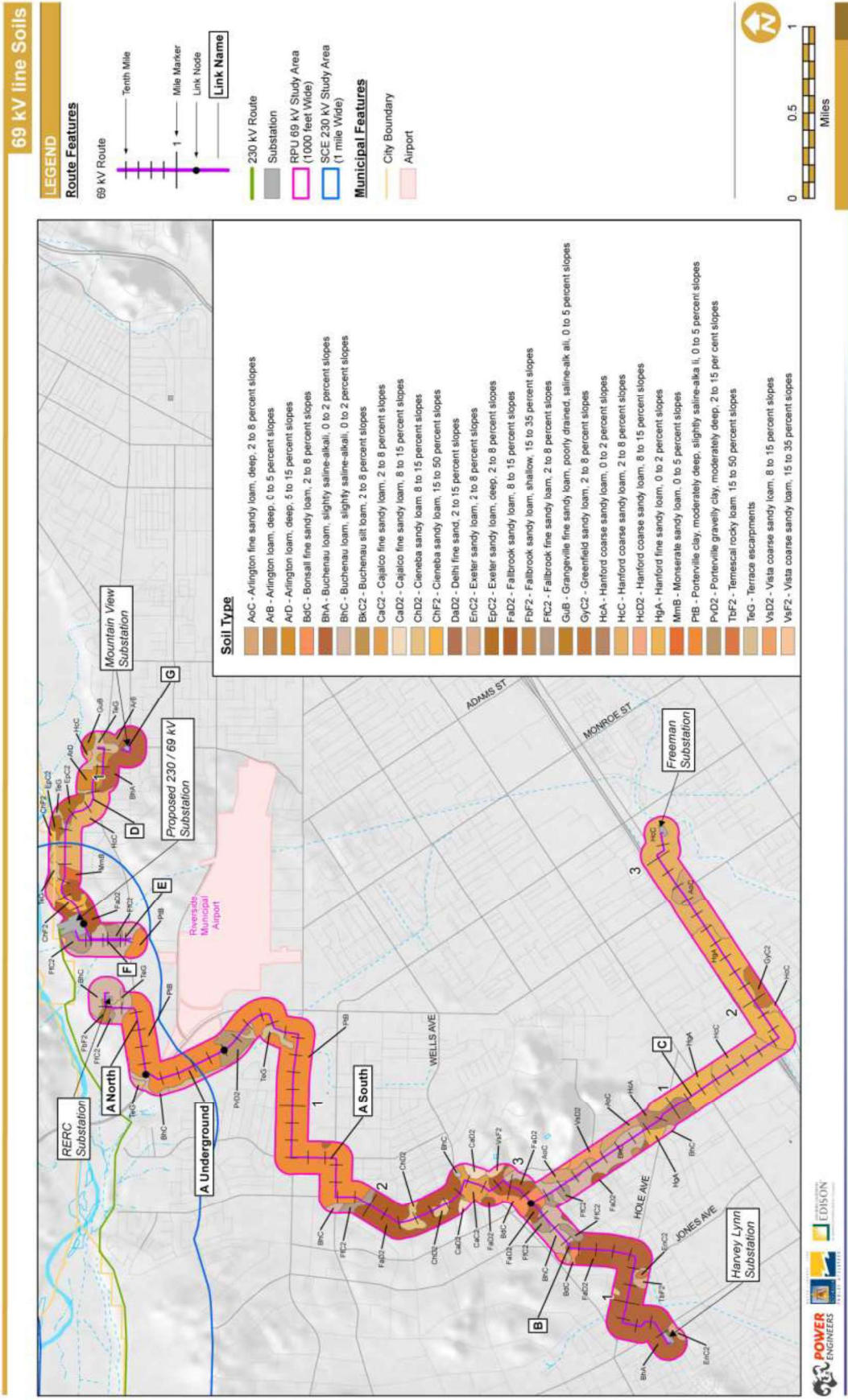
FIGURE 3.2.6-3. SOILS IN THE 230 KV TRANSMISSION LINE CORRIDOR



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FIGURE 3.2.6-4. SOILS IN THE 69 KV SUBTRANSMISSION LINE CORRIDORS



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AASHTO Soil Groups

The tendency for a soil to expand when saturated is a function of clay content and the type of clay present. While a method to estimate expansion potential has been developed by ASTM International (ASTM D-4829), this soil attribute is not available in the NRSC data tables. As a proxy for this soil characteristic, the AASHTO soil group assignments were used for this purpose. The AASHTO soil classification spans from A-1 to A-8 based on soil gradation results. A summary of the soil groups is as follows:

<u>Soil Groups</u>	<u>Significant Constituents</u>
<u>A-1 to A-3</u>	<u>Gravelly sandy soils with little or no clay</u>
<u>A-4 to A-5</u>	<u>Silty soils and fine sandy and clayey silty soils</u>
<u>A-6 to A-7</u>	<u>Clay soils</u>

Due to the high clay content, AASHTO soil groups A-6 and A-7 designate soils that *may* exhibit an expansion index greater than 20, which would require “special [foundation] design considerations” (UBC, 1994). The word “*may*” is italicized because the potential for expansion is dependent on the type of clay present. Expansion characteristics are dependent on clay molecular structure. In brief, 1:1 clays, such as kaolinite and nacrite, are not prone to expansion, while 2:1 clays, such as smectite and montmorillonite, are very prone to expansion. Thus the characterization target is to identify soils with high 2:1 clay content. In the absence of data pertaining to clay types, AASHTO soil groups A-6 and A-7 are used as proxies for this soil hazard.

Since there is no readily available information sources for the distribution of expansive clays in the Proposed Project area, for purposes of this study the AASHTO soil groups were subjectively assigned these relative descriptors as related to expansion potential:

<u>Soil Groups</u>	<u>Descriptor</u>
<u>A-1 to A-3</u>	<u>Least Susceptible</u>
<u>A-4 to A-5</u>	<u>Moderately Susceptible</u>
<u>A-6 to A-7</u>	<u>Most Susceptible</u>

Impact Levels

Geology

Discussions of Impact Methods and Impact Results for geologic resources are discussed in Sections 4.0 and 5.0, respectively, in the Earth Resources Technical Report in Appendix B.

Soils

The methodology and results for assessing Project impacts on, or due to, soil conditions is described below. Initial impacts assessment is a combination of soil sensitivity and construction project location/activity level. Long-term final impact estimates are based on application of EPEs developed specifically to address soil hazards for the Proposed Project.

The sensitivity and construction activity levels are defined below. A summary of the estimated short- and long-term impacts is included later in this section.

Sensitivity

Impacts are identified by comparing the sensitivity of a soil to planned activities in the substation

and utility line construction/relocation process. Soil sensitivity ratings have been assigned to the soils at the new substation locations and along the 230 kV and 69 kV lines. The ratings are determined by the occurrence of most susceptible/highest clay content on the following scale:

- High Sensitivity
 - Kw Factor rated as Most Susceptible
 - WEG Factor rated as Most Susceptible
 - AASHTO Soil Groups rated as Most Susceptible
- Moderate Sensitivity
 - Kw Factor rated as Moderately Susceptible
 - WEG Factor rated as Moderately Susceptible
 - AASHTO Soil Groups rated as Moderately Susceptible
- Low Sensitivity
 - Kw Factor rated as Least Susceptible
 - WEG Factor rated as Least Susceptible
 - AASHTO Soil Groups rated as Least Susceptible

Activity Levels

Direct impacts to soils would result from construction activities. The Proposed Project components considered in this analysis are described in detail in Chapter 2, Project Description. In brief, they include:

- New 230 kV transmission line
- New 69 kV subtransmission lines
- Fiber optic line relocation
- Two new substations: Wilderness and Wildlife

A qualitative assessment of the degree of ground disturbance resulting from construction activity associated with each Project component is summarized in Table 3.2.6-1. The construction activity levels for the 230 kV transmission line and the substations were designated as high due to the acreage of surface disturbance. For purposes of the geology and soil resources assessment, the 69 kV subtransmission line would essentially involve placement of four- to six-foot diameter steel tube towers along an existing ROW, so construction activity is rated as low. The area of temporary and total ground disturbance related to the fiber optic line is 0.005 acre (217 square feet). The fiber optic replacement component was rated as low due to the small degree of soil disturbance and construction in urban hardscaped areas. There were no moderate levels of construction activity identified in this evaluation.

TABLE 3.2.6-1. SOIL IMPACTS SUMMARY

<u>Project Component</u>	<u>Construction Activity Rating</u>	<u>Soil Sensitivity</u>	<u>Sensitive Soil Attribute</u>	<u>Project Impact Estimate</u>
230 kV Transmission Line	High	High	Kw, WEG, AASHTO	LTS ¹
69 kV Subtransmission Line	Low	High	AASHTO	LTS
Fiber Optic	Low	Low	NA ²	LTS
Wilderness / Wildlife Substations	High	Low	NA	LTS

Notes: 1. LTS = less than significant 2. NA = not applicable

Soil Impacts

The primary concerns for soil resources during and after construction are: (1) avoidance or minimization of potential impacts related to wind and water; and (2) construction on potentially expansive soils.

The following describes the conditions associated with impact levels.

High Impact

- High wind or water erosion potential
- Location on soils most susceptible to expansion

Moderate Impact

- Moderate wind or water erosion potential
- Location on soils moderately susceptible to expansion

Low Impact

- Low wind or water erosion potential
- Location on soils least susceptible to expansion

In order to decrease potential soil-related impacts, two EPEs have been incorporated into the Proposed Project. The first EPE (GEO-1) is performance of a geotechnical investigation, and the second EPE (GEO-2) is development of a construction stormwater pollution prevention plan (SWPPP) to minimize soil erosion. The geology and soils EPEs are described in detail in the Impacts Assessment section in below.

The initial impacts are designated based on comparing construction activity ratings with soil sensitivity. Where soil sensitivity to disturbance is low, no MMs are necessary. Table 3.2.6-1 summarizes the findings of the soil impacts assessment. This table is the basis for the soil resources Environmental Impacts discussion below.

Regulatory Setting

The 2009 International Building Code (IBC) defines minimum standards for buildings, construction, and grading activities. At the state level, California provides a minimum standard for building design through the 2010 California Building Code (CBC). The 2010 CBC is based on the 2009 IBC with necessary California amendments. The CBC regulates site demolition, excavation, grading activities, including drainage and erosion control, and construction methods to protect people and property from geologic hazards. The Alquist-Priolo Earthquake Fault Zoning Act of 1972 prohibits the construction of buildings used for human occupancy on active surface faults, which are faults which have ruptured the ground surface in the past 11,000 years.

The Seismic Hazards Mapping Act (California Code of Regulations, Title 14, Article 10) provides for a State-wide seismic hazards mapping program that the California Geological Survey (CGS) administers to assist cities and counties in fulfilling their requirements for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides or other ground failure and other seismic hazards caused by earthquakes. CGS's Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in

California, provides guidance for evaluation and mitigation of earthquake-related hazards for projects within designate hazard zones.

Impact Assessment

Significance Threshold Criteria

The significance criteria for this analysis were developed from criteria presented in Appendix G of the CEQA Guidelines.

Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:
 1. 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?
 2. Strong seismic ground shaking?
 3. Seismic-related ground failure, including liquefaction?
 4. Landslides?
- b) Result in substantial soil erosion or the loss of topsoil?
- c) 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?
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
- e) 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?

Environmental Protection Elements (EPEs)

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.6-2 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to geology and soils. As discussed above in Section 3.1.2, the EPEs have been included as part of the Proposed Project; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.6-2. ENVIRONMENTAL PROTECTION ELEMENTS – GEOLOGY AND SOILS

<u>EPE</u>	<u>Description</u>
<u>GEO-01</u>	<u>Conduct a geotechnical study and incorporate recommendations into final project design.</u> Prior to final design of the substations, substation upgrades, distribution line relocation, access roads, fiber optic line and Transmission/Subtransmission Line placement, a geotechnical study would be performed to identify site-specific soils and geologic conditions in enough detail to support final engineering. Recommendations from the geotechnical study would be incorporated into the final project design.
<u>GEO-02</u>	<u>Implement soil erosion protection measures.</u> Transmission line, substation construction and upgrades, access roads, distribution line relocation and fiber optic line construction would be performed in accordance with the soil erosion and water quality protection measures specified in the Construction SWPPP.

Environmental Impacts

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project and alternatives would result in significant impacts to geology and soils.

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

- 1. 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?**
- 2. Strong seismic ground shaking?**
- 3. Seismic-related ground failure, including liquefaction?**
- 4. Landslides?**

Less Than Significant Impact. Because the Proposed Project area is within an area considered to be geologically active, the Proposed Project will be exposed to some risk from geologic hazards, such as ground shaking and ground failure due to earthquakes. Being an electric power transmission project, the Proposed Project would not consist of habitable buildings or other structures that would be occupied by large numbers of people and thereby increase exposure of people to these hazards. No known active faults cross the Proposed Project area.

The proposed 230 kV transmission line and 69 kV subtransmission line facilities, as well as the existing and planned substations, are anticipated to be affected by strong ground shaking, as these areas are located in the seismically active region of Southern California. Seismic-related horizontal and vertical ground accelerations (peak acceleration range from 0.43g to 0.75g) have the potential to directly cause structure failures, resulting in equipment loss and power outages. In addition, the potential for seismic-related ground failure exists for both the proposed 230 kV and 69 kV lines, and at the four substations to be upgraded as these areas are underlain by alluvial deposits and shallow groundwater where liquefaction could occur. During seismic events, potential slope instability impacts, including landslides, mudflows, debris flows and rock falls, could occur along the 230 kV and 69 kV lines and the RERC, Harvey Lynn and Freeman substations. As part of geotechnical investigations during the Proposed Project design phase, location-specific seismic analysis would be conducted. Final designs would be reviewed by the CPUC and the City of Riverside for both RPU's 69 kV elements and SCE's 230 kV elements. As a result, the risk of structure collapse resulting in human injury or death during a seismic event is negligible. ~~Impacts would be less than significant, as the design of the Proposed Project would incorporate recommendations from the geotechnical study into the final design.~~

The final design of the Proposed Project would incorporate recommendations from the geotechnical study, as described in EPE GEO-1.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The Proposed Project will not result in substantial soil erosion or the loss of topsoil. As noted in MM BIO-7, prior to vegetation clearing, a topsoil salvage evaluation would be conducted to determine if soil is suitable for salvage, in which case it would be used for restoration on-site, by being generally free of non-native weed species, trash, or other contaminants that would limit usefulness during restoration and revegetation. The estimated

ground to be disturbed during construction of the transmission line is 94.1 acres. Of this, approximately 69.5 acres of ground would be restored, resulting in approximately 24.6 acres of permanent ground disturbance associated with facility and access road construction. A number of Proposed Project features would reduce the potential for erosion and topsoil loss resulting from access road development. These would include: rehabilitation of existing unimproved roads prior to construction, ~~grading~~—installation of drainage structures and retaining walls, subsoil compaction and aggregate base application in flood-prone areas (100-year flood zone), and avoidance of access road construction ~~with-in~~within the 10-year flood zone. Restoration of temporary disturbance areas would begin immediately following construction activities. The Wilderness and Wildlife substations would permanently disturb approximately 6.4 and 3.0 acres, respectively. All substation upgrades would occur within the footprint of existing substation sites. Relocation of the existing distribution lines would result in a temporary disturbance of 3.6 acres, all of which would be restored following construction.

Although sections of the 230 kV line would be located along the boundaries of the Santa Ana River floodplain where there are steep slopes, these slopes expose granite bedrock, which is not prone to erosion events or debris flows.

As noted in EPE GEO-2, construction activities would be performed in accordance with soil erosion and water quality protection measures that will be specified in the Proposed Project's construction SWPPP. The SWPPP is MM HAZ-03 (see Section 3.2.7) and will include best management practices designed to control erosion during construction. The SWPPP is also described in Section 3.2.8 (Hydrology and Water Quality—Construction Stormwater Program subsection) as part of the General Construction Permit requirements to comply with the National Pollutant Discharge Elimination System.

c) 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?

Less than Significant Impact. Most of the Proposed Project's transmission and sub-transmission routes are located along relatively level ground with Pleistocene-age alluvium and away from steep slopes, except for portions along the boundaries of the Santa Ana River floodplain. Generally, the steep slopes along the Santa Ana River expose granite bedrock, which is not prone to landslides, lateral spreading, subsidence or collapse. The Proposed Project would not increase soil instability in any area.

A potential for liquefaction exists for the 230 kV and 69 kV lines and at the four substations to be upgraded, as these areas are underlain by alluvial deposits and shallow groundwater. Although the Proposed Project would not increase the potential for liquefaction events, the potential exists for the Proposed Project to be affected by liquefaction events. As part of geotechnical investigations during the Proposed Project design phase, location-specific analysis (including seismic-related processes such as liquefaction) would be conducted. Based on findings, some minor structure location adjustments may be required. As appropriate, structure foundation designs would be augmented or modified. Impacts would be less than significant, as the final design of the Proposed Project would incorporate recommendations from the geotechnical study ~~into the final design~~, as described in EPE GEO-1.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

~~Less Than Significant Impact. Because soils in the Proposed Project area are predominantly sandy with no expansive soils, no substantial risks to life of property are anticipated to occur. Although portions of the excavation footprint are underlain by clays most susceptible to expansion, the risk to construction on expandable clays would be reduced through implementation of EPE GEO-1. Prior to final design, site-specific geotechnical investigations would be conducted to confirm soil characteristics. With the implementation of EPE GEO-1, impacts would be less than significant, as the final design of the Proposed Project would incorporate recommendations from the geotechnical study.~~

e) 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?

No Impact. The Proposed Project does not require septic tanks or alternative waste water disposal systems.

Significant Unavoidable Impacts

~~The 230 kV transmission line and 69 kV subtransmission lines, as well as the existing and planned substations, are anticipated to be affected by strong ground shaking, as these areas are located in the seismically active region of Southern California. These impacts to Proposed Project facilities are not avoidable. As described under criterion (a) above, final design would incorporate results of the geotechnical investigation's recommendations for structure modification and strengthening. The Proposed Project would not result in a significant increased risk to the environment resulting from unavoidable seismic activity. There would be no potentially significant unavoidable impacts.~~

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3.2.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes potential hazards to public health and safety associated with construction and operation of the Proposed Project, including potential hazardous materials impacts and aviation safety impacts. This section examines how implementation of the Proposed Project would alter the present conditions of the local environment due to hazards and hazardous materials.

Environmental Setting

Hazardous Materials

Hazardous materials generally include substances that are toxic, flammable, corrosive, or chemically reactive, or produce vapors when combined with water. Chapter 6.95, Section 25501(o) of the California Health and Safety Code defines “hazardous materials” as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. In some instances, the former land uses of a site involved the use of hazardous materials which may have spilled and percolated into the soil, water, or groundwater, resulting in contamination. Soils possessing contaminant levels in excess of established thresholds for particular substances (e.g., petroleum products, lead) must be treated as hazardous waste during their excavation, transport, and disposal. Consequently, the handling, transport, and disposal of hazardous materials is heavily regulated by federal, state, and local governmental policies to protect humans and the environment from the potentially harmful effects of accidental spills or unauthorized releases.

The RTRP area is located in unincorporated areas of Riverside County and within portions of the Cities of Jurupa Valley, Riverside, and Norco. Portions of the Proposed Project are located within undeveloped open space and/or residential, commercial, agricultural, and industrial land use areas. Past land uses including, but not limited to, commercial and industrial uses could have resulted in hazardous material releases in the area.

Limited Phase I Environmental Site Assessment and Hazardous Materials Database Records Search

A Limited Phase I hazardous materials environmental site assessment was prepared to assist in the analysis of the Proposed Project’s potential impacts. Specifically, a regulatory database search was conducted by TrackInfo Services, LLC. (TIS) on May 8, 2008 to identify potential environmental contamination issues that may be associated with known hazardous material storage sites, use locations, and/or illicit release sites in the RTRP vicinity. The results of that records search identifies known hazardous sites, which are discussed and analyzed below. Additionally, EPEs and mitigation measures identified within this section would serve to mitigate any impacts associated with the discovery of hazardous materials/sites during construction. The analysis shows that the potential for impacts related to hazards and hazardous materials is very low due to the relatively non-invasive nature of the construction of a transmission line across a property.

More specifically, the records search performed as part of the Limited Phase I environmental site assessment included a search radius of approximately one-half mile along the Proposed Project routes, as well as the Van Buren Offset Alternative route. Due to the size of the RTRP area, the results of the findings were documented in separate Environmental FirstSearch Reports, which

consisted of the following components: 230 kV transmission line, 69 kV subtransmission lines, and the Van Buren Offset Alternative¹ (see Appendix F for a summary of results). In some instances, the same site may have been identified by multiple search databases or may have been found within the search radius of more than one of the routes. Overall, sites identified in the TrackInfo Services preliminary record search include SWL sites, RCRA generators, UST, and LUST sites associated with local businesses (e.g., gas stations, auto repair shops, supermarkets, etc.). No National Priority List or Superfund sites were identified at the Proposed Project ROWs or substation locations. Detailed information on identified sites can be found in the TIS Reports.

A list of the regulatory agency databases searched by TIS is provided in Table 3.2.7-1.

TABLE 3.2.7-1. REGULATORY AGENCY DATABASES SEARCHED

Regulatory Database Searched	Type of Record	Regulatory Agency
NPL	National Priority List	United States Environmental Protection Agency (EPA)
NPL Delisted	National Priority List Subset	EPA
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	EPA
NFRAP	No Further Remedial Action Plan (archive of CERCLIS sites)	EPA
RCRA COR ACT	Resource Conservation and Recovery Act Information System Sites	EPA
RCRA TSD	Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facilities	EPA
RCRA GEN	Resource Conservation and Recovery Information System Generators	EPA
RCRA NLR	Resource Conservation and Recovery Act Information System Sites that no longer require reporting	EPA
Federal IC / EC	Brownfields Management System	EPA
ERNS	Emergency Response Notification System	EPA/National Response Center
Tribal Lands	Indian Lands of the United States	U.S. Department of the Interior / Bureau of Indian Affairs
State Spills 90	Regional Water Quality Control Board's (RWQCB's) spills, leaks, investigations, and cleanups	California Environmental Protection Agency (Cal EPA)
State/Tribal SWL	Solid Waste Information System	California Integrated Waste Management Board / State Water Resources Control Board (SWRCB) / Riverside County
State/Tribal LUST	Leaking Underground Storage Tank Listing	SWRCB / Riverside County
State/Tribal UST/AST	Underground and Aboveground Storage Tank Listing	SWRCB / Riverside County
State/Tribal IC	Deed Restricted Sites Listing	Cal EPA / Department of Toxic Substances Control (DTSC)
State/Tribal VCP	Voluntary Cleanup Program Sites	Cal EPA / DTSC
State/Tribal Brownfields	See Mitigation and Brownfields Reuse Program Database	DTSC
State Permits	Tracks establishments and the status of their permits in relation to compliance with federal, state and local regulations.	Riverside County

¹ Note: Data obtained and summarized in the Environmental FirstSearch Report for the Van Buren Offset Alternative also contains information for the Bain Street Alternative, which was initially considered and then subsequently eliminated from further consideration. (see Chapter 6, Project Alternatives).

Regulatory Database Searched	Type of Record	Regulatory Agency
State Other	Database of sites that are known to be contaminated as well as sites with uncharacterized properties where further studies may reveal problems	Cal EPA / DTSC
Floodplains	100-year and 500-year floodplain boundaries	Federal Emergency Management Agency
Oil & Gas Wells	Completions, pluggings, and permits	California Department of Conservation

SOURCE: TrackInfo Services, LLC (Environmental FirstSearch Report), 2008.

Schools

The RTRP area overlaps with the following school districts: Alvord Unified School District, Riverside Unified School District, Jurupa Unified School District, and Corona-Norco Unified School District (Riverside County Office of Education, 2009). There are ~~ten~~ eleven schools located within one-quarter mile of the Proposed Project area. These schools are identified in Table 3.2.7-2 below.

TABLE 3.2.7-2. SCHOOLS LOCATED WITHIN 0.25 MILES OF THE RTRP

Jurisdiction	School	Address	RTRP Component Within 0.25 Miles
Riverside County City of Jurupa Valley	VanderMolen Elementary School	6744 Carnelian, Mira Loma (<u>Jurupa Valley</u>)	I-15 Route
City of Riverside	La Granada Elementary School	10346 Keller Avenue, Riverside	69 kV Route
	Arlanza Elementary School	5891 Rutland Street, Riverside	69 kV Route
	Crest Haven School	5966 Robinson Avenue, Riverside	69 kV Route
	Norte Vista High School	6585 Crest Avenue, Riverside	69 kV Route
	Learning Bee Montessori Academy	10235 Wells Avenue, Riverside	69 kV Route
	<u>Lovett's Children, Inc.</u>	<u>10744 Hole Avenue, Riverside</u>	<u>69 kV Route</u>
	Wells Middle School	10000 Wells Avenue, Riverside	69 kV Route
	Hawthorne Elementary School	2700 Irving Street, Riverside	69 kV Route
	Myra Linn Elementary School	10435 Branigan Way, Riverside	69 kV Route
	Our Lady Queen of Angels Elementary School	4824 Jones Avenue, Riverside	69 kV Route

Airports

There are two airport facilities within proximity to the RTRP: Flabob Airport and Riverside Municipal Airport. Flabob Airport, a privately owned public use airport, is located northwest of the Santa Ana River in the City of Jurupa Valley approximately 2.5 miles northeast of the Proposed Project (230 kV transmission line component). Riverside Municipal Airport, a City of Riverside-owned and operated public airport situated in the northwest portion of the City of Riverside, is located generally southeast/east and within two miles of the Proposed Project (230 kV transmission and 69 kV subtransmission line components).

The Riverside County Airport Land Use Commission (ALUC) has established "Airport Influence Areas" which apply to all properties located within a two-mile radius of airports in Riverside County. Based upon Federal Aviation Administration (FAA) criteria, the Riverside County Airport Land Use Compatibility Plan (~~RCALUC~~) has established height restrictions for objects that could represent a potential airspace obstruction issue and safety concern due to their location within an Airport Influence Area and Airport Compatibility Zones. More specifically,

Policy 1.5.3 of the ~~RCALUC~~ notes that actions within Airport Compatibility Zones that may warrant review by the ~~Riverside County~~ ALUC include proposals for new development (including buildings, antennas, and other structures) having a height of more than 35 feet (Zones B1 and B2), 70 feet (Zone C), and 150 feet (Zones D and E). Within Compatibility Zone A, any proposed development, including vegetation, requires ALUC review.

While the Proposed Project is not located within the ~~RCALUC~~ designated Airport Influence Area or any of the Airport Compatibility Zones for Flabob Airport (ALUC, 2010), a review of the Riverside Municipal Airport Compatibility Map (Map RI-1) places the Proposed Project (~~230kV~~ 230 kV transmission and ~~69kV~~ 69 kV subtransmission line components) within the ~~RCALUC~~ designated Airport Influence Area and several Airport Compatibility Zones for Riverside Municipal Airport (see Table 3.2.7-3). Table 3.2.7-3 provides a summary of the Riverside Municipal Airport Compatibility Zones crossed by the Proposed Project. Table 3.2.7-3 also provides height ranges for the Proposed Project structures (transmission line steel lattice towers, tubular steel poles, and wood poles), and the structure height for proposed development that may be subject to ALUC review within designated Airport Compatibility Zones for Riverside Municipal Airport.

TABLE 3.2.7-3. RIVERSIDE MUNICIPAL AIRPORT COMPATIBILITY ZONES CROSSED BY THE PROPOSED PROJECT

RTRP COMPONENT	RIVERSIDE MUNICIPAL AIRPORT COMPATIBILITY ZONES					
	Riverside Municipal Airport Compatibility Zone Name					
	ZONE A	ZONE B1	ZONE B2	ZONE C	ZONE D	ZONE E
	Location					
	Runway Protection Zone within Building Restriction Line	Inner Approach / Departure Zone	Adjacent to Runway	Extended Approach / Departure Zone	Primary Traffic Patterns and Runway Buffer Area	Other Airport Environs
	Structure Height for Proposed Development Subject to ALUC Review within Designated Airport Compatibility Zones					
	any proposed development	>35 feet	>35 feet	>70 feet	>150 feet	>150 feet
230kV Transmission Line Steel Lattice Towers and Tubular Steel Poles (structure height range: 90-175 feet)						
Proposed Project (I-15 Route)		x		x	x	
69kV Subtransmission Line Wood Poles (structure height range: 65-90 feet)						
Wilderness Substation to Mountain View Substation				x	x	
Wilderness/Wildlife Substation to Jurupa Avenue		x		x	x	*
RERC to Harvey Lynn Substation and Freeman Substation	*	*	x	x	x	x

Wildfire Protection and Emergency Medical Response Services

The occurrence of fire is most likely in times of high temperature, low humidity, and strong surface winds. Areas associated with the greatest fire potential in the Proposed Project vicinity include industrial and open-space areas, and the most common sources of ignition are equipment- and arson-related. Fire protection and emergency response providers that would serve the RTRP and surrounding area include ~~the Cal Fire/Riverside County Fire Department~~, the City of Riverside Fire Department, and the City of Norco Fire Department (see Section 3.2.13, Public Services and Utilities).

Regulatory Setting

Proposed Project consistency with ~~Federal Aviation Administration (FAA)~~ regulations and policies relating to the Riverside County Airport Land Use Compatibility Plan (~~RCALUC~~) are described in detail in Section 3.2.9, Land Use and Planning. Activities associated with construction and operation of the Proposed Project would be consistent with all other applicable plans and policies related to hazards and hazardous materials, as they are described below.

Federal

Federal Aviation Administration, Federal Aviation Regulation Title 14, Part 77

The ~~Federal Aviation Administration (FAA)~~ issues and enforces regulations pertaining to air traffic control and the assignment and use of airspace. Standards for determining whether a proposed development may become an obstruction to navigable airspace are provided in FAA Title 14, Part 77. The FAA requires notification through the filing of the two-part FAA Form 7460 (7460-1 Notice of Proposed Construction or Alteration, and 7460-2 Supplemental Notice) if certain criteria are met due to construction or operation of a proposed project. Criteria that would trigger the need for FAA filing on a proposed project are described in detail in Section 3.2.9 of this document (see Section 3.2.9, Land Use and Planning).

Occupational Safety and Health Administration

The federal Occupational Safety and Health Administration (OSHA) enforces regulations covering the handling of hazardous materials in the workplace. The regulations established in the Code of Federal Regulations (CFR) Title 29 are designed to protect workers from hazards associated with encountering hazardous materials at the work site. The regulations require certain training, operating procedures, and protective equipment to be used at work sites that could encounter hazardous materials.

Resource Conservation and Recovery Act

Under the federal Resource Conservation and Recovery Act (RCRA), individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements and is approved by the EPA. The EPA approved California's RCRA program, referred to as the Hazardous Waste Control Law (HWCL), in 1992.

Toxic Substance Control Act

The Toxic Substance Control Act (TSCA) was enacted by Congress in 1976, and has enabled the EPA to track 75,000 chemicals produced or shipped into the United States from abroad. The

EPA then monitors these chemicals and can mandate reporting or testing for those that may be detrimental to human health or the environment. The EPA is responsible for placing bans on the manufacturing and importation of chemicals that pose an unreasonable risk or hazard to the environment or human health.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was developed to protect water, air, and land resources from the risk created by past chemical disposal practices. This act is also referred to as the Superfund Act, and the sites listed under it are referred to as Superfund sites. Under CERCLA, the EPA maintains a list, known as CERCLIS, of all contaminated sites in the nation that have undergone in part or are currently undergoing clean-up activities. CERCLIS contains information on current hazardous waste sites, potential hazardous waste sites, and remedial activities. This includes sites that are on the National Priorities List (NPL) or being considered for the NPL.

State

California Code of Regulations

The California Code of Regulations (CCR), Title 22, Section 66261.20-24, contains technical descriptions of characteristics that would classify wasted material, including soil, as hazardous waste. When excavated, soils with concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials on-site prepare a business plan and submit it to local health and fire departments. The business plan must include details of the facility and business conducted at the site, an inventory of hazardous materials that are handled and stored on-site, an emergency response plan, and a safety and emergency response training program for new employees, with an annual refresher course.

California Occupational Safety and Health Administration

In California, the California Occupational Safety and Health Administration (Cal/OSHA) regulates worker safety similar to the federal OSHA. OSHA has developed worker safety regulations for the safe abatement of lead-based paint and primers (Lead in Construction Standard, Title 8 CCR 1532.1).

California Public Utilities Code

California Public Utilities Code Section 21658 prohibits structural hazards associated with utility poles and lines near airports. Should a transmission line be located in the vicinity of an airport or exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) is required by the ~~Federal Aviation Administration (FAA)~~ FAA in accordance with Federal Aviation Regulation, Part 77, "Objects affecting Navigable airspace."

Department of Toxic Substance Control

The Department of Toxic Substances Control (DTSC) is responsible for regulating the use,

storage, transport, and disposal of hazardous substances in the state. DTSC maintains a Hazardous Waste and Substances Site List for site cleanup. This list is commonly referred to as the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Materials Emergency Response

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the EPA, California Highway Patrol (CHP), California Department of Fish and Game (CDFG), the Regional Water Quality Control Boards (RWQCBs), the local air districts (in this case, the South Coast Air Quality Management District [SCAQMD]), and local agencies.

Pursuant to the Business Plan Act, local agencies are required to develop “area plans” for the response to releases of hazardous materials and wastes. These emergency response plans depend to a large extent on the business plans submitted by people who handle hazardous materials. An area plan must include pre-emergency planning and procedures for emergency response, notification, and coordination of affected government agencies and responsible parties, training, and follow up.

Hazardous Materials Transportation

The State of California has adopted U.S. Department of Transportation (USDOT) regulations for the intrastate movement of hazardous materials; state regulations are contained in 26 CCR. In addition, the State of California regulates the transportation of hazardous waste originating in the state and passing through the state (26 CCR). Both regulatory programs apply in California.

The two State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the CHP and the California Department of Transportation (Caltrans). The CHP enforces hazardous materials and hazardous waste labeling and packing regulations to prevent leakage and spills of material in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are the responsibility of the CHP, which conducts regular inspections of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at as many as 72 locations throughout the state that can respond quickly in the event of a spill.

Common carriers are licensed by the CHP, pursuant to California Vehicle Code Section 32000. This section requires the licensing of every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time, and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards.

Every hazardous waste package type used by a hazardous materials shipper must undergo tests that imitate some of the possible rigors of travel. Every package is not put through every test. However, most packages must be able to be kept under running water for a time without leaking,

dropped fully loaded on to a concrete floor, compressed from both sides for a period of time, subjected to low and high pressure, and frozen and heated alternately.

Hazardous Waste Management and Handling

Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements. The EPA must approve state programs intended to implement federal regulations. In California, the California Environmental Protection Agency (Cal/EPA) and DTSC, a department within Cal/EPA, regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. The EPA approved California's RCRA program, the HWCL, in 1992. DTSC has primary hazardous material regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe the management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in ordinary landfills. Hazardous waste manifests must be retained by the generator for a minimum of three years. Hazardous waste manifests provide a description of the waste, its intended destination, and regulatory information about the waste. A copy of each manifest must be filed with the state. The generator must match copies of hazardous waste manifests with receipts from treatment, storage, and disposal facilities.

Contaminated soils and other hazardous materials removed from a site during construction or remediation may need to be handled as hazardous wastes.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the RWQCBs administer the requirements of the Clean Water Act that regulate pollutant discharges into waterways of the U.S. The Santa Ana RWQCB enforces site cleanup regulations for illicit discharges that have resulted in contamination of groundwater in the Proposed Project area.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, Cal/EPA adopted regulations which implemented a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements, including: (1) hazardous waste generators and hazardous waste onsite treatment; (2) underground storage tanks (USTs); (3) aboveground storage tanks (ASTs); (4) hazardous materials release response plans and inventories; (5) risk management and prevention programs; and (6) Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level and the agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA). In Riverside County, the Hazardous Materials Management Division of the Department of Environmental Health is the designated CUPA.

Local

Riverside County Airport Land Use Commission

The ~~Riverside County Airport Land Use Commission (ALUC)~~ has developed policies and procedures that relate to land development within the vicinity of airports in Riverside County. Riverside County ALUC policies and procedures are described within the Riverside County Airport Land Use Compatibility Plan ~~(RCALUC)~~. The ALUC is responsible for reviewing planned projects that would be located within ~~RCALUC~~-designated “Airport Influence Areas” and determining whether these projects are consistent with the ~~RCALUC~~Riverside County Airport Land Use Compatibility Plan adopted by the ALUC for the airport’s vicinity. The overall intent of ~~RCALUC~~the ALUC is to protect and promote the safety and welfare of residents in the airport vicinity and users of the airport while ensuring the continued operation of the airports. Specifically, this plan seeks to protect the public from adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace (ALUC, 2010).

Specific airspace protection policies of the ~~RCALUC~~ that would be relevant to the Proposed Project are provided in Section 3.2.9 (Land Use and Planning).

Riverside County Hazardous Materials Management Division

The Hazardous Materials Management Division (HMMD) is one of three divisions of Riverside County’s Department of Environmental Health. HMMD is the CUPA for Riverside County, responsible for regulating hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, USTs, and risk management plans.

The goal of the HMMD is to protect human health and the environment by ensuring that hazardous materials, hazardous waste, and USTs are properly managed. To accomplish this goal, the HMMD has several programs that work with the regulated community and the public.

Riverside County General Plan

The Safety Element of the Riverside County General Plan includes some general policies relating to hazards and hazardous materials (Riverside County, 2003). Some selected policies that may be applicable to the Proposed Project include:

Policy S 4.13: Require that facilities storing substantial quantities of hazardous materials within inundation zones shall be adequately flood-proofed and hazardous materials containers shall be anchored and secured to prevent flotation and contamination.

Policy S 5.5: Conduct and implement long-range fire safety planning, including stringent building, fire, subdivision, and municipal code standards, improved infrastructure, and improved mutual aid agreements with the private and public sector.

Policy S 6.1: Enforce the policies and siting criteria and implement the programs identified in the County of Riverside Hazardous Waste Management plan, which includes the following:

- a. Comply with federal and State laws pertaining to management of hazardous wastes and

materials.

- b. Ensure active public participation in hazardous waste and hazardous materials management decisions in Riverside County.
- c. Coordinate hazardous waste facility responsibilities on a regional basis through the Southern California Hazardous Waste Management Authority (SCHWMA).
- d. Encourage and promote the programs, practices, and recommendations contained in management priority to the reduction of hazardous waste at its source.

City of Riverside General Plan 2025

The Public Services Element of the City of Riverside General Plan 2025 includes the following policies related to hazardous materials, which may be applicable to the Proposed Project:

Managing Hazardous Materials

Policy PS-3.1: Ensure that hazardous materials used in business and industries are handled properly.

Policy PS-3.2: Provide the Fire Department with resources to ensure that hazardous materials used and generated by businesses are handled properly.

Policy PS-3.3: Work with responsible Federal, State, and County agencies to identify and regulate the disposal of toxic materials.

Policy PS-3.4: Reduce the risks associated with ground transportation hazards, where feasible.

The City of Riverside General Plan 2025 includes the following objectives and policies related to air traffic safety, which may be applicable to the Proposed Project:

Objective PS-4: Protect the community from hazards related to air and ground transportation.

Policy PS-4.2: When planning for development near airports, anticipate possible increases in airport activity and expansion of airport facilities and services and the effects these changes may have on public safety.

Policy PS-4.6: Ensure that development within airport influence areas is consistent with Airport Protection Overlay Zone development standards and the Riverside County Airport Land Use Compatibility Plan.

The Public Safety Element supports safety through policies designed to provide and enhance fire response. These policies are as follows.

Fire Prevention and Response

Policy PS-6.1: Ensure that sufficient fire stations, personnel and equipment are provided to meet the needs of the community as it grows in size and population.

Policy PS-6.2: Endeavor to meet/maintain a response time of five minutes for Riverside's urbanized areas.

Policy PS-6.3: Integrate fire safety considerations in the planning process.

Policy PS-6.4: Evaluate all new development to be located in or adjacent to wildland areas to assess its vulnerability to fire and its potential as a source of fire.

Policy PS-6.5: Mitigate existing fire hazards related to urban development or patterns of urban development as they are identified and as resources permit.

Policy PS-6.6: Continue to implement stringent brush-clearance requirements in areas subject to wildland fire hazards.

Policy PS-6.7: Continue to involve the City Fire Department in the development review process.

Policy PS-6.8: Pursue strategies that maintain the City's Class 2 [International Organization for Standardization] ISO rating.

Policy PS-6.9: Provide outreach and education to the community regarding fire safety and prevention.

Policy PS-6.10: Identify noncontiguous streets and other barriers to rapid response and pursue measures to eliminate the barriers.

Multi-Hazard Functional Planning and Interagency Response

Policy PS-9.8: Reduce the risk to the community from hazards related to geologic conditions, seismic activity, flooding and structural and wildland fires by requiring feasible mitigation of such impacts on discretionary development projects.

Impact Assessment

Significance Threshold Criteria

Appendix G of the CEQA guidelines establishes the significance criteria for assessing project impacts related to hazards and hazardous materials. According to the CEQA Checklist, a project would cause a significant impact and would require mitigation if it would:

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

- plan or emergency evacuation plan; or
- h) 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.

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.7-4 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to hazards and hazardous materials. As discussed above in Section 3.1.2 the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.7-4. ENVIRONMENTAL PROTECTION ELEMENTS - HAZARDS AND HAZARDOUS MATERIALS

Environmental Protection Element	Description
HAZ-01	<p>Health and Safety Plan. A health and safety plan to address site-specific health and safety issues would be prepared and implemented. The plan would address emergency medical services and procedures, including specific emergency response and evacuation measures for project personnel.</p> <p>Hazardous Materials and Hazardous Waste Handling. A project-specific Hazardous Materials Management and Hazardous Waste Management Program would be developed prior to initiation of the project. Material Safety Data Sheets would be made available to all project workers.</p> <ul style="list-style-type: none"> • Transport of Hazardous Materials: Transport of hazardous materials would be in compliance with U.S. Department of Transportation (DOT) Caltrans and California Highway Patrol (CHP) regulations (Title 22 CCR, Division 4.5 and 49 CFR 261-263). Transporters of hazardous materials and waste are responsible for complying with all applicable laws, rules and regulations, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations. • Refueling stations would be located in designated areas where absorbent pads and trays would be available. The fuel tanks would also contain a lined area to ensure that accidental spillage does not occur. Hazardous materials, such as paints, solvents, and penetrants, would be kept in an approved locker or storage cabinet. <p>Emergency Release Response Procedures: An Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to construction activities. All construction personnel, including environmental monitors, would be aware of state and federal emergency response reporting guidelines.</p>
HAZ-02	<p>Construction Site Soil Management. The Soil Management Plan would provide guidance for the proper handling, onsite management, and disposal of impacted soil that might be encountered during construction activities. The plan would include practices that are consistent with the California Title 8 Occupational Safety and Health Administration (Cal-OSHA) regulations, as well as remediation standards that are protective of the planned use. In the event that potentially contaminated soils are encountered within the footprint of construction, soils would be tested and stockpiled. The Certified Unified Program Agency (CUPA) would determine whether further assessment is warranted.</p>

Environmental Protection Element	Description
HAZ -03	<p>Environmental Management Program</p> <ul style="list-style-type: none"> Spill Prevention, Countermeasure, and Control Plan (SPCC Plan): In accordance with Title 40 of the CFR, Part 112, an SPCC for proposed and/or expanded substations would be prepared. The plan would include engineered and operational methods for preventing, containing, and controlling potential releases, and provisions for safe cleanup and reporting. Hazardous Materials Business Plans (HMBPs): Prior to operation of new or expanded substations, an HMBP would be prepared or updated and submitted, in accordance with Chapter 6.95 of the CHSD, and Title 22 CCR. <p>Storm Water Pollution Prevention Plan (SWPPP): A project-specific construction SWPPP would be prepared and implemented prior to the start of construction of the transmission lines and substations.</p>
HAZ-04	<p>Worker Environmental Awareness Program (WEAP) Design and Implementation* – A WEAP would be prepared. All construction crews and contractors would be required to participate in WEAP training prior to starting work on the project. The WEAP would serve as a training program to provide workers with an overview of general environmental protection measures as dictated by current law and permits. It would clearly establish for construction workers the conditions they need to follow to keep the Proposed Project in compliance with applicable laws.</p>

Mitigation Measures

Specific mitigation measures (see Table 3.2.7-5) would be applied for impacts related to hazards and hazardous materials.

TABLE 3.2.7-5. MITIGATION MEASURES - HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure	Description
MM HAZ-01	<p>Appoint trained personnel for sampling, data review, and regulatory coordination. If potentially contaminated soil, water or groundwater is encountered during Project construction, construction activities shall stop in the area of the discovery and an OSHA-trained individual with a minimum of 40-hours of Hazardous Waste Operations and Emergency Response (HAZWOPER) worker training shall be responsible for collecting a sample of the suspected material(s). An SCE/RPU approved Health and Safety Officer shall review the laboratory data results from suspected contaminated material(s) and, if contamination is confirmed, that individual shall coordinate with the appropriate regulatory agency (Santa Ana RWQCB or local CUPA) to determine the level of worker protection and protocol for handling/disposal of specific hazardous materials. If it is determined that no contamination is present the Health and Safety Officer shall notify the construction contractor to resume construction in the area.</p>
MM HAZ-02	<p>Document compliance with measures for encountering unknown contamination. If evidence of soil or groundwater contamination is detectable by visual and/or olfactory observation during Project construction, a report documenting the exact contamination location, laboratory test results, actions taken, and recommended protection measures (if applicable) shall be submitted to SCE, RPU, and the CPUC for each incident. This report shall be submitted within 30 days of SCE's/RPU's receipt of laboratory results.</p>
MM HAZ-03	<p>Fire Prevention and Management Plan. A fire prevention and management plan shall be developed and applicable fire laws and regulations would be observed during the construction period. All construction personnel would be advised of their responsibilities under the applicable fire laws and regulations.</p> <p>The Fire Prevention and Management Plan would ensure uniform guidelines for prevention, control, and extinguishment of fires that could potentially occur during transmission line construction. It would identify firefighting and reporting tools and equipment for construction-related use of diesel and gasoline operated engines, welders, heavy construction operating equipment, and tractor dozers. It would identify Proposed Project-specific fire prevention measures, such as permits required, smoking and fire rules, storage and parking areas, welding, and emergency measures.</p>

Environmental Impacts

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Would construction activities require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released?

Less than Significant Impact. Proposed Project construction activities would involve the limited transport, use, and disposal of hazardous materials. Hazardous materials required to fuel and lubricate Proposed Project construction vehicles and heavy motorized equipment would include gasoline, diesel fuel, transmission fluid, brake fluid, hydraulic fluid, solvents, motor oils, and lubricating grease. On a temporary basis, transmission line and substation construction would also involve the limited use of other potentially hazardous materials such as welding materials, propane, canned spray paint, paint thinner, battery acid (in the MEERS [or control rooms] of the substations), insect repellent, and air tool oil.

Construction of the Proposed Project would also generate waste that requires disposal. In the City of Riverside, this would include the removal of chemically treated wood poles associated with existing 69 kV subtransmission lines that would create clearance or reliability issues for the proposed 230 kV transmission line. No transformers with the potential to release PCB-containing oil into the environment would be removed from the upgraded RTRP substations during construction (see Chapter 2, Project Description).

Proposed Project impacts related to the use of hazardous materials would be associated with the unintentional release or spill of significant quantities of such materials, which could compromise the quality of water or groundwater, or could present hazardous health conditions for workers and the public. While hazardous materials used during construction would only be present onsite in relatively small quantities, the potential still exists for a small spill of these materials to occur.

Proposed Project construction practices would be conducted in accordance with applicable federal, State, and local requirements. All treated wood poles associated with the 69 kV subtransmission lines requiring removal under the Proposed Project would be disposed of as waste by an approved RPU vendor pursuant to RPU waste management and agency requirements. RPU and SCE would also implement EPE HAZ-01, which requires the development and implementation of a Health and Safety Plan, Hazardous Materials and Hazardous Waste Management Program, and an Emergency Release Response Plan, prior to construction. The Health and Safety Plan would address emergency medical services and procedures and specific emergency response and evacuation measures. The proper protocol for the transport of hazardous materials, as well as the fueling and maintenance of construction equipment, would also be addressed by implementation of EPE HAZ-01. In addition, RPU and SCE would implement EPE HAZ-03, which includes the preparation of a Spill Prevention, Countermeasure, and Control Plan (SPCC), Hazardous Materials Business Plan (HMBP), and a Storm Water Pollution Prevention Plan (SWPPP).

Consequently, impacts associated with the temporary storage, transport, and use of hazardous materials during construction would be less than significant with EPEs HAZ-01 and EPE HAZ-03 included in the Proposed Project design.

Would Proposed Project operations require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released?

Less than Significant Impact. Proposed Project operations would require the periodic transport, use, or disposal of hazardous liquids and solids that could pose a potential risk to the public or the environment if improperly used or inadvertently released. Scenarios that could present a risk in the Proposed Project area resulting from the presence of these substances include: (1) the contamination of surface and/or groundwater, (2) the release of hydrocarbons associated with oils into the air, and (3) the risk of fire resulting from the accidental ignition of combustible petroleum products or other flammable chemicals.

During Proposed Project operations, volatile toxic liquids such as gasoline (containing benzene) may be contained in above-ground fuel tanks at the upgraded and/or proposed RTRP substation sites. The unintended release of benzene could produce a fire hazard or environmental contamination hazard. Implementation of EPE HAZ-01 would minimize potential impacts related to the improper storage, use, handling, or accidental spillage of such material by required enforcement of a Hazardous Materials and Hazardous Waste Management Plan, and an Emergency Response Plan. Pursuant to Title 40 of the CFR, Part 112, and EPE HAZ-03, a SPCC Plan would also be developed and implemented to protect the surrounding environment from an accidental spill of benzene (a carcinogenic component of gasoline).

Operation of the proposed Wildlife and Wilderness substations would also require the routine use of electrical transformers. While transformer oil has historically contained substances of concern such as polychlorinated biphenyls (PCBs), petroleum hydrocarbons, and lead, the new RTRP substations would use mineral oil (a highly-refined hydrocarbon based substance that is not considered a hazardous material) for transformer insulation purposes.

Implementation of EPEs HAZ-01 and HAZ-03 would reduce the potential for hazardous materials spills to occur during maintenance of the RTRP substations. Implementation of these measures would also ensure adequate remediation of spilled materials, resulting in limited to no human and/or environmental exposure; associated impacts would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Less than Significant Impact with Mitigation Incorporation. Proposed Project implementation would not create a significant hazard to the public or the environment due to an accidental release of hazardous materials. The Proposed Project would include the limited transport, use, or disposal of minor amounts of liquid and solid wastes. Potential risks in the RTRP area resulting from the presence of these substances are addressed under section a) above.

As part of EPE HAZ-01, RPU and SCE would provide materials safety data sheets (MSDS) listing hazardous materials that would be present on site, their method of transport, and their intended use. The MSDS would record potentially harmful materials for safety purposes and would be distributed to Proposed Project construction crews and on-site personnel to inform them of their presence.

The presence of existing hazardous materials in an urban environment such as the City of Riverside is typically higher. Therefore, there is still a chance that unidentified hazardous

materials could be accidentally encountered or unearthed during construction of the RTRP, potentially releasing them into the environment. Data obtained from the TIS FirstSearch Report (see Appendix F for a summary of results) indicates that hazardous materials were identified in proximity to the Proposed Project area. Contaminants related to these sites or the undocumented releases of hazardous materials from other nearby sites (e.g., petroleum hydrocarbons from LUSTs) could have migrated through the groundwater table to the Proposed Project area, and could be unearthed during Proposed Project excavation activities.

Workers would be instructed according to EPE HAZ-04 in the WEAP training program regarding potentially contaminated soils or water. During Project construction, workers would observe the site for common contamination indicators (e.g., an obvious sheen, strong odor, or abnormal stains to soil or groundwater). If contamination indicators are observed, the construction contractor would document the exact location(s) of suspected contamination, notify the environmental monitor, and issue a temporary stop work until potentially contaminated material(s) are properly characterized and addressed in accordance with EPE HAZ-02, the Project Soil Management Plan. Once contaminated soils have been removed, construction work would continue.

Improper characterization of hazardous materials encountered in the field or misinterpretation of laboratory data could result in the improper handling or disposal of contaminated materials, resulting in further environmental contamination and/or human exposure to hazardous substances. Therefore, integrated EPEs would be insufficient to avoid significant impacts. Implementation of mitigation measures HAZ-01 and HAZ-02 is necessary to ensure proper interpretation, documentation, and reporting of laboratory data results by qualified individuals, reducing the impact from encountering previously unidentified hazardous substances to less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Less than Significant Impact. One existing school ~~has been~~, VanderMolen Elementary School, was identified within one quarter-mile of the Proposed Project in ~~unincorporated Riverside County: VanderMolen Elementary School.~~ the City of Jurupa Valley. In addition, nine existing schools have been identified within one quarter-mile of the RTRP components in the City of Riverside, including: La Granada Elementary School, Arlanza Elementary School, Crest Haven School, Norte Vista High School, Learning Bee Montessori Academy, Lovett's Children Inc., Wells Middle School, Hawthorne Elementary School, Myra Linn Elementary School, and Our Lady Queen of Angels Elementary School.

Construction of the Proposed Project would involve the limited transport and use of hazardous substances (e.g., motor fuel, solvents, lubricating fluids) within one quarter-mile of these schools. Hazardous materials used during construction would be typical of those used at construction sites and all applicable federal, State and local handling requirements would be followed. In addition, RPU and SCE would implement EPE HAZ-01, which includes development and implementation of a Health and Safety Plan and Emergency Release Response Plan, as well as detailed information related to the proper transport of materials, containment of materials, and fueling/maintenance of construction equipment. As such, construction activities that must occur along the Proposed Project routes would not result in the release of hazardous contaminants that may impact local schools in the area.

In addition, construction and operation of the Proposed Project would not expose schools to hazardous emissions. Therefore, construction and operation of the Proposed Project would not expose schools to hazardous material spills or hazardous emissions; related impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

Less than Significant Impact with Mitigation Incorporation. California Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to update a list of known hazardous materials sites referred to as the “Cortese List.” The sites on the Cortese List are compiled from lists provided by the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), and the Integrated Waste Management Board (IWMB).

DTSC’s Site Mitigation and Brownfields Reuse Program EnviroStor database provides the DTSC’s component of Cortese List data. According to the DTSC EnviroStor database, the Proposed Project would be located on a 62-acre Voluntary Cleanup site known as the Riverside Agricultural Park (Site), located at 7020 Crest Avenue in Riverside, California. The Project would require the installation and use of four TSPs along the northern boundary of the Site property. Contaminants of concern associated with the Site have included polychlorinated biphenyls (PCBs) and dioxins.

The U.S. Army first developed the Site as a sewage treatment plant in 1942. The sewage treatment plant accepted waste from industrial, commercial, and residential customers and was decommissioned in 1965. From 1962 through May 1, 2006, the Site was continuously owned by the City of Riverside, and the Friends of the Riverside Airport (FRA) currently own the Site. Various activities (e.g., livestock shows, motocross use) have been conducted at the Site since 1965, even though the Site has remained undeveloped.

Between April and July 2009, FRA completed the first phase of implementation of a DTSC-approved Revised Response Plan (RsP), which included the excavation, removal, and proper disposal of soils containing PCB concentrations in excess of 50 mg/kg from locations determined by previous Site investigation efforts. Other items removed from the Site include brush debris (green waste), PCB contaminated concrete, sewer pipe, and wooden utility poles. In addition, several soil samples were collected from select locations and analyzed for dioxins, furans and metals. The soil sample results and subsequent report confirmed the presence of dioxin/furan congeners in excess of the health-based screening level for the planned residential land use (TRC, 2010).

A second and final phase of the RsP implementation is scheduled for 2011 to finish FRA’s remediation of the Site and prepare the Site for single-family residential development (DTSC letter, 2010). During the second phase, any remaining debris will be hauled off-site and surface sampling will be conducted under PCB-impacted stockpiles after removal. Confirmation soil samples for PCBs will be collected according to the RsP. Soils containing dioxins and furans will be removed from the Site to a level that is determined by the DTSC to be acceptable for

residential development (Phase I Response Plan Implementation Report Former Agricultural Park, 2010).

Construction of the Proposed Project (69 kV subtransmission line component) would begin in 2012 (see Chapter 2, Project Description). Following implementation of the planned second phase of Site remediation in 2011, contaminant residuals would be removed from the Site and no impacts related to the excavation and mobilization of known hazardous materials at the Proposed Project site are anticipated to occur. However, EPE HAZ-02 (Soil Management Plan) would be included as part of the Proposed Project design, and implementation of mitigation measures HAZ-01 and HAZ-02 is recommended to ensure proper interpretation, documentation, and reporting of laboratory data results by qualified individuals, in the event that hazardous materials are encountered. With implementation of these measures, hazards to the public or environment from exposure to such materials would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.

The Proposed Project would occur within the Airport Influence Area of the Riverside Municipal Airport and could potentially impact airport operations.

Less than Significant Impact. At its nearest point, the Proposed Project (230 kV transmission line component) lies approximately 2.5 miles southwest of Flabob Airport and would not traverse the Airport Influence Area for Flabob Airport.

The Proposed Project (230 kV transmission and 69 kV subtransmission line components) would occur within two miles of the Riverside Municipal Airport and would be located within the Airport Influence Area for the Riverside Municipal Airport. Table 3.2.7-3 summarizes the Riverside Municipal Airport Compatibility Zones crossed by the Proposed Project, height ranges for the Proposed Project structures in these zones, and the structure height for proposed development that would be subject to ALUC review within designated Airport Compatibility Zones. As proposed, the placement of 90- to 175-foot tall SCE 230 kV transmission line structures (TSPs and LSTs) would occur in the following Airport Compatibility Zones for Riverside Municipal Airport: Zone B1 (Inner Approach/Departure Zone; proposed structures taller than 35 feet may require review), Zone C (Extended Approach/Departure Zone; proposed structures taller than 70 feet may require review), and Zone D (Primary Traffic Patterns and Runway Buffer Area; proposed structures taller than 150 feet may require review). Similarly, the placement of 65- to 90-foot tall RPU 69 kV subtransmission structures (wood poles) would occur in the following Airport Compatibility Zones for Riverside Municipal Airport: ~~Zone A (height of any proposed structure requires review),~~ Zone B1, Zone B2 (proposed structures taller than 35 feet may require review), Zone C (proposed structures taller than 70 feet may require review), Zone D, and Zone E (proposed structures taller than 150 feet may require review).

The Proposed Project would comply with applicable FAA regulations. SCE will submit a Notice of Proposed Construction or Alteration (Form 7460-1) of the 230 kV transmission line component of the Proposed Project for review to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible. RPU will electronically submit a separate Form 7460-1 for FAA review of the 69 kV subtransmission line components of the Proposed Project. Submittal of these notices would occur when final design of the Proposed

Project is completed and the precise location of all Proposed Project structures are known. The FAA review process would consider final structure locations and structure heights, including transmission and subtransmission lines, as well as construction related equipment that might impact air navigation (i.e., cranes, helicopters used for wire-stringing activities). Following the completion of consultation, and the determination of the FAA, SCE will review incorporate any recommendations of the FAA regarding into the design, construction, and operation the 230 kV transmission line components of the Proposed Project, and will submit documentation of this consultation to RPU. Helicopters used during construction of the RTRP for wire stringing activities would not require ALUC review, but would adhere to applicable FAA regulations with regards to flight restrictions in designated areas and would not impact airport operations. Of the 77 structures that are part of the 230 kV transmission line, 23 would require FAA filing due to the proximity to the Riverside Municipal Airport. One catenary span exceeds 200 feet above ground level and requires filing with the FAA. Due to Visual Departure Flight Procedures, the FAA may require lighting structures within two nautical miles of runways. The catenary is over 200 feet above ground level and will also require marking. No current Visual or Instrument procedures would be impacted.

The 69 kV subtransmission line structures as ~~currently~~previously designed within the vicinity of the airport would likely have exceed the allowable heights in Zones A, B1, B2, and C. These structures would be an incompatible land use if the heights of the structures were to pose a hazard to air navigation near the airport. As such, the Proposed Project as previously designed would not be have been consistent with the adopted ~~RCALUC~~Riverside County Airport Land Use Compatibility Plan. This inconsistency would ~~therefore result~~have resulted in a significant impact. As a result, RPU modified the proposed 69 kV subtransmission line route so that it would travel underground in the vicinity of the airport land use zones along Doolittle Avenue, between Jurupa Avenue and Morris Street. Also, as a result of review by the Federal Aviation Administration, new poles along Wilderness Avenue, north of Jurupa Avenue, would be equipped with obstruction lighting.

~~Although undergrounding may reduce this impact to a less than significant level, the overall environmental impacts caused by undergrounding would be greater and, as such, it is not considered a feasible mitigation measure for the Proposed Project. Specifically, undergrounding would potentially cause greater traffic impacts from the placement of the transmission line within the public street right-of-way, and would also require substantially more excavation than overhead structures. This level of ground disturbance would require several times more heavy equipment than overhead construction. Further, during future repairs of an underground line, entire sections between vaults, approximately 2,000 feet apart, may require re-excavation. Outages would also be prolonged on the underground line, due to poor accessibility and time required in identifying the failure location, excavating the underground line, and correcting any outage. Economic considerations associated with undergrounding show that undergrounding is infeasible as a mitigation measure, even for more limited sections of the Project, as further discussed in more detail within Chapter 6. Impacts to the RCALUC would be significant.~~

On April 12, 2012, the ALUC conducted a public hearing and determined that the proposal to establish 69 kV subtransmission lines within the Riverside Municipal Airport Influence Area, as revised to place all portions within Airport Compatibility Zone A underground, is consistent with the 2005 Riverside Municipal Airport Land Use Compatibility Plan. The ALUC made its consistency determination subject to the following conditions:

1. The following uses shall be prohibited:
 - (a) Any use which would direct a steady light or flashing light of red, white, green or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following take off or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator or FAA-approved obstruction lighting.
 - (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
 - (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.
 - (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
2. Any outdoor lighting installed shall be hooded and shielded to prevent either the spillage of lumens or reflection into the sky.
3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, the permittee shall be required to take all measures necessary to eliminate such interference.

The following conditions would apply to all 159 pole locations within the Airport Influence Area:

4. Prior to final inspection and within five (5) days after construction reaches its greatest height, Riverside Public Utilities or its designated representative shall submit Form 7460-2, Notice of Actual Construction or Alteration, to the Federal Aviation Administration in accordance with the requirements of the Determination of No Hazard to Air Navigation issued for that structure. The requirement for submittal is also applicable in the event the project is abandoned.
5. The specific coordinates, height, top point elevation, power and frequencies of the proposed pole structure shall not be amended without further review by the Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in building height or elevation shall not require further review by the Airport Land Use Commission.
6. Temporary construction equipment used during actual construction of the structure shall not exceed the height of the proposed structure, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.
7. Temporary construction equipment exceeding 15 feet in height shall not be erected or stored within the boundaries of Airport Compatibility zone A. Riverside Public Utilities shall utilize all feasible means to minimize storage of equipment not exceeding 15 feet in height within the boundaries of Airport Compatibility Zone A.
8. The maximum height of the proposed structure, including all mounted appliances and obstruction or aviation safety lighting (if any), shall not exceed the height above ground level specified for that structure in column 3 (labeled "AGL") of Table 1052-A, and the maximum elevation at the top of structure shall not exceed the elevation above mean sea level specified for that structure in column 4 (labeled "AMSL") of Table 1052-A.

The following additional conditions apply to the pole locations identified as E5, E6, E7, E8, E9, E10, F4, F5, F6, F7, F8, F9, F10 and F11, generally located along Wilderness Avenue, northerly of Jurupa Avenue:

9. The structure shall be marked/lighted in accordance with FAA Advisory Circular 70/7460-1 K change 2, Obstruction Marking and Lighting, red lights – Chapters 4, 5 (Red) & 12.
10. In addition to complying with the requirements of Condition No. 4 above, Riverside Public Utilities or its designated representative shall submit Form 7460-2, Notice of Actual Construction or Alteration, to the Federal Aviation Administration (FAA) at least 10 days prior to the start of construction (emphasis added), so as to provide for the addition of a note (by FAA officials) to the “Take-off Minimums and (Obstacle) Departure Procedures” in the U.S. Terminal Procedures publication.
11. Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, shall be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

The following additional condition applies to the remaining pole locations within the Airport Influence Area:

12. The Federal Aviation Administration has conducted aeronautical studies of this proposal and has determined that neither marking nor lighting of the proposed pole structures (Other than RPU Structure ID Numbers E5 through E10 and F4 through F11 as specified above) is necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, such marking and /or lighting (if any) shall be installed in accordance with FAA Advisory Circular 70/7460-1 K Change 2 and shall be maintained in accordance therewith for the life of the project.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

No Impact. No ~~known~~ private airstrips were identified within two miles of the Proposed Project area; therefore, no Proposed Project-related safety hazards would result for residents living or working within the Proposed Project vicinity.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Less than Significant Impact. Much of the proposed RTRP would require the installation of transmission and subtransmission lines across and/or adjacent to existing road rights-of-way. Many of these roadways exist within heavily travelled urban areas that could be used for emergency vehicle passage (i.e., fire, ambulance, paramedic), or by people during an emergency evacuation. The Proposed Project may require temporary closure or single-lane closure of these roadways during the following construction activities: transport of oversized equipment, stringing of the conducting wires, and installation of overhead or underground fiber optic cables.

To avoid interference with emergency response and evacuation pathways, SCE and RPU would implement EPE TRANS-03, which includes the preparation and use of a Proposed Project-specific Traffic Control Plan (TCP) (see Section 3.2.15, Traffic and Transportation). Provisions

in the TCP would define the locations of all roads scheduled for temporary closure due to Proposed Project traffic, and would also define the use of flag persons, warning signs, cones, barricades, lights, and other measures necessary to conduct closure. Road closures and the placement of safety barriers along roadways would be coordinated with the local police, fire, ambulance, and paramedic services at least one month prior to closure activities, and would be scheduled to take place during off-peak commute hours. In the event of an emergency, construction crews would also be required to immediately cease work and accommodate emergency vehicles passing through the area.

Consequently, Proposed Project construction would not impair implementation of or physically interfere with an emergency response or evacuation plan route. Impacts would be less than significant.

h) 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.

Less than Significant Impact with Mitigation Incorporation. The proposed RTRP area comprises a predominantly urban environment containing industrial, commercial, and residential uses; however, a small portion of the proposed 230 kV transmission line route crosses abundant vegetation that may pose conditions conducive to wildfires near the banks of the Santa Ana River. In the unlikely event that sparks generated by idling construction vehicles or equipment accidentally ignite vegetation located in or adjacent to Proposed Project rights-of-way or staging areas, fire suppression services may be required during Proposed Project construction.

In addition, transmission infrastructure could present a potential fire risk in this area during Proposed Project operation, requiring the need for fire suppression services. Incidences of fire could occur if tree limbs or structures were to interface with a live phase conductor. The likelihood of this occurring would be reduced by the periodic clearing of vegetation and tree limbs within Proposed Project rights-of-way, in conformance with CPUC General Order 95, and Public Resources Code Section 4293. Similarly, structures that may present a fire hazard and danger to the public would be restricted from the rights-of-way.

SCE would implement EPE NOI-02 (see Section 3.2.11, Noise), which requires that construction crews avoid the idling of vehicles and power equipment when not in use, which would also minimize the potential for fire. To further reduce the likelihood of fire incidences in the proposed RTRP area, RPU and SCE would implement MM HAZ-03, which would require development and enforcement of a Proposed Project-specific Fire Management Plan. Fire safety standards established in the RTRP Fire Management Plan would be followed relative to Proposed Project construction, and construction personnel would be trained to use proper fire prevention and management techniques. As a standard precautionary measure, power would be automatically removed from the line if conductor failure were to occur. Lightning protection would also be provided by overhead groundwires along the line. Prior to construction, SCE would also coordinate with the Riverside County Fire Department to ensure that construction activities and associated lane closures would not hinder firefighting response pathways or delay response time.

Implementation of MM HAZ-03 would reduce potential fire impacts to less than significant levels.

Significant Unavoidable Impacts

~~The 69 kV subtransmission line structures as currently designed within the vicinity of the airport would likely exceed the allowable heights in Zones A, B1, B2, and C. These structures would be an incompatible land use if the heights of the structures were to pose a hazard to air navigation near the airport. As such, the Proposed Project would not be consistent with the adopted RCALUC. This inconsistency would therefore result in a significant impact.~~

With the implementation of EPEs and MMs, the Proposed Project will not result in any significant unavoidable impacts related to hazards or hazardous materials within the Proposed Project area.

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3.2.8 HYDROLOGY AND WATER QUALITY

Methodology for Resource Inventory and Other Data Collection

Water resources within the Proposed Project study area were inventoried and evaluated using GIS data obtained from government agencies, review of relevant studies and agency programs, agency consultation, and inspection of resources in the field (February 2007).

Wetlands were identified within the Proposed Project area primarily using the National Wetland Inventory (NWI) from the U.S. Fish and Wildlife Service. The Proposed Project area comprises a total of four quadrangle maps: Corona North, Fontana, Riverside West, and Guasti. NWI maps were available for all quadrangles except Fontana. Wetlands associated with the Santa Ana River that were not available from NWI were photo-interpreted using aerial imagery and reference NWI classifications. The NWI provides approximate locations of wetlands one acre or larger and may or may not be jurisdictional based on the 1987 United States Army Corps of Engineers (USACE) Wetlands Delineation Manual.

Environmental Setting

The proposed 230 kV transmission line and 69 kV subtransmission line routes, new substations, and substation upgrade sites are located within the Santa Ana River watershed (Hydrologic Unit Code 18070203) in Riverside County, California. The Santa Ana River is the largest stream system in southern California, extending from its headwaters in the San Bernardino Mountains and flowing over 100 miles in a southwesterly direction to its mouth at the Pacific Ocean between Newport Beach and Huntington Beach in Orange County. The Prado Dam and Reservoir is located downstream of the Proposed Project area, approximately two miles west of the City of Corona, and provides flood control and water storage for Orange County.

The climate of the Santa Ana Region is classified as Mediterranean: hot, dry summers, and cool, wet winters. Average annual precipitation ranges from 10 inches per year in the coastal plain to 40 inches per year in the San Bernardino Mountains (WRCC 2009). Within the inland alluvial valleys of the Proposed Project area, precipitation averages 10 inches per year with most of the precipitation occurring between November and April. High surface water flows occur in the spring and low flows occur in the summer. Winter and spring floods commonly result from storms during wet years. Similarly, during the dry season, infrequent summer storms can cause floods in local streams.

230 kV Transmission Line

Surface Water

The Santa Ana River is the dominant water feature within the proposed 230 kV Proposed Project area. The upper reach receives seasonal flow from three tributaries and receives discharge from the Rialto Waste Water Treatment Plant and the Rapid Infiltration and Extraction Facility. The lower reach of the Santa Ana River has perennial flow, low gradient, and slow velocity. There are two tributaries in the lower reach, which consists of flow from the Riverside Water Quality Control Plant (WQCP) and runoff from Hole Lake. These tributaries merge and flow parallel to the river and discharge to the Hidden Valley Wildlife Area and Wetlands Enhancement Area. These wetlands provide tertiary treatment of the effluent from the Riverside WQCP by removing nitrogen. Downstream, three additional intermittent tributaries also contribute flow to the Hidden

Valley wetlands. The drainage running parallel to Bain Street is a concrete-lined channel. Under base-flow conditions, a substantial percentage of the Santa Ana River consists of treated wastewater (Mendez and Belitz 2002).

One man-made water body, Hole Lake, is located on the south side of the river, west of Van Buren Boulevard. Hole Lake is a wide, partially vegetated channel that receives flow through runoff and drains into the Hidden Valley Wildlife Area and Wetlands Enhancement Area. The 1,500-acre Hidden Valley Wildlife Area and Wetlands Enhancement Area is located downstream of the Van Buren Boulevard bridge in the southwestern portion of the Proposed Project area. The wetlands were constructed by the City of Riverside to provide additional nitrogen removal for effluent from the Riverside WQCP (RWQCB 2004).

Floodplain

The Federal Emergency Management Agency (FEMA) maps 100-year flood hazard areas (floodplains) for communities in the United States. The 100-year floodplain of the Santa Ana River has been significantly modified for flood control and development. Portions of the river within the Proposed Project area have been channelized with levees and other flood control structures constricting the natural floodplain. Where the river has not been channelized, the floodplain broadens, encompassing such low-lying areas as golf courses and park areas.

Within the Proposed Project area, 100-year floodplains have been mapped along ~~several tributaries to~~ the Santa Ana River and several of its tributaries. In the community of Mira Loma, a floodplain associated with the channelized Day Creek fans out south of Limonite Avenue and crosses the Goose Creek Golf Club before merging with the floodplain of the Santa Ana River. Another floodplain, associated with a drainage ditch, roughly parallels I-15 from SR-60 to 68th Street. Pedley and Glen Avon are crossed by the 100-year floodplains of the Pyrite Channel and Bly Channel, as well as that of an unnamed drainage originating in the Pedley Hills, northeast of the Indian Hills Golf Club.

Wetlands

The NWI analyzes high-altitude imagery to identify wetlands based on vegetation, visible hydrology, and geography. In the Proposed Project area, NWI wetlands are primarily associated with the Santa Ana River and its tributaries. Two NWI wetland types have been identified in the Proposed Project area: riverine and palustrine.

The palustrine system includes all non-tidal wetlands dominated by vegetation and small, shallow, permanent or intermittent ponds. The palustrine wetlands include forested (PFO), scrub-shrub (PSS), emergent (PEM), and open water (POW) wetlands primarily associated with the Santa Ana River, Hole Lake, and intermittent drainages. The PFO wetlands are dominated by trees such as cottonwoods (*Populus fremontii*) and willows (*Salix exigua*, *S. lasiolepis*, and *S. laevigata*). The PSS wetlands are dominated by shrubs such as mule fat (*Baccharis salicifolia*), arrowweed (*Pluchea sericea*), and cottonwood and willow saplings. Water regimes of the palustrine wetlands are characterized as intermittently flooded/temporary and saturated/semi-permanent/seasonal. The PFO and PSS wetlands within the Santa Ana River corridor provide valuable riparian habitat for fish and wildlife, habitat connectivity, pollutant removal, sediment transport and storage, water temperature control, riverbank stability, flood water retention, groundwater recharge, and energy and nutrient cycling.

The riverine system includes all wetlands and deepwater habitats contained within a channel. The upper and lower reaches of the Santa Ana River are classified by NWI as intermittent riverine (R4) and lower perennial riverine (R2), respectively. Five of the river's tributaries are classified as R4. The water regimes of the riverine wetlands are characterized as intermittently flooded/temporary, intermittently exposed/permanent, and saturated/semi-permanent/seasonal.

Ground Water

As precipitation and snowmelt flow into creeks, streams, and rivers, much of the water percolates into the ground. These alluvial groundwater basins cover nearly 40 percent of the State of California. Approximately 43 percent of Californians obtain drinking water from groundwater, through both municipal and privately owned wells. The proposed 230 kV route crosses three groundwater sub-basins within the Upper Santa Ana Valley Groundwater Basin: the Riverside-Arlington Sub-basin, the Temescal Sub-basin, and a portion of the Chino Sub-basin. These sub-basins are described in California's Groundwater Bulletin 118.

Well data was obtained from the Western Municipal Water District (WMWD) and analyzed to estimate local water table depths within the study area. North of the Santa Ana River, available depth-to-water measurements range from an average of 14.7 feet along the Santa Ana River to 53.5 feet just south of SR-60. South of the river, available depth-to-water measurements range from 10.6 feet near the intersection of Arlington Avenue and Tyler Street to 37.3 feet near Crestlawn Cemetery (WMWD 2008).

Water Quality

Water quality is the physical, chemical, and biological characteristics of water, when assessed according to standards related to ecosystem health, the safety of drinking water, and the safety of human contact. The State of California Water Resources Control Board and the nine Regional Boards are responsible for setting policies and developing regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. Water Quality Control Plans (Basin Plans), developed and implemented by the Regional Water Quality Control Boards (RWQCBs), consider regional beneficial uses, water quality characteristics, and water quality problems (RWQCB 1995).

Surface and groundwater quality objectives in the area of the proposed 230 kV transmission line route are described in the Water Quality Control Plan (Basin Plan) for the Santa Ana Region. Additional groundwater quality objectives are described in California's Groundwater Bulletin 118. Water quality objectives were established to protect the existing and potential beneficial uses of surface and groundwater.

Beneficial uses are goals or desired uses of a water body as specified in the Basin Plan, and may include existing, proposed or, in some cases, historic uses. Beneficial uses for Reach 3 of the Santa Ana River are Agricultural Supply, Ground Water Recharge, Water Contact Recreation, Non-contact Water Recreation, Warm Freshwater Habitat, Wildlife Habitat, Rare, Threatened, or Endangered Species, and Spawning, Reproduction, and/or Early Development.

While none of the smaller drainages within the area of the proposed 230 kV route have been listed in the basin plan, waters that have not been specifically listed are assigned the same

beneficial uses as the waters to which they are tributary; thus, tributaries to the Santa Ana River have the same beneficial uses described above (RWQCB 1995).

The reach of the Santa Ana River (Reach 3) within the Proposed Project area lies within the Middle Santa Ana River Watershed Management Area (WMA), which is managed by the RWQCB. The Middle Santa Ana River WMA extends from Prado Dam south of the Proposed Project area to the foothills of the San Bernardino and San Gabriel Mountains.

Non-point source (NPS) pollution is the leading cause of water quality impairment in the region. The Middle Santa Ana River WMA is impaired from NPS pollutants including nutrients, pathogens, sediment, and dissolved minerals/salinity/chloride from agriculture, urban, and hydromodification sources. The RWQCB has identified construction-related erosion and sedimentation as a significant NPS problem in the WMA (RWQCB 2004).

Twenty-six miles of the Santa Ana River (Reach 3) are listed on the 2002 Clean Water Act (CWA) Section 303(d) list of water quality impaired segments. The list was approved by the United States Environmental Protection Agency (EPA) in July 2003. The cause of impairment is pathogens (fecal coliform and *E. coli*) from dairies (confined animal feeding operations) in the Chino Basin, which is downstream of the study area. In June 2007, the Santa Ana River, Reach 3 was placed in the Water Quality Limited Segments Being Addressed category of the Section 303(d) list because a Total Maximum Daily Load (TMDL) has been approved by the EPA and an implementation plan has been approved (SWRCB 2007).

The Arlington-Riverside, Temescal, and Chino Groundwater Sub-basins each have the beneficial uses of Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, and Industrial Process Supply.

69 kV Subtransmission Lines

Surface Water

The proposed 69 kV routes are located within mostly developed urban areas south of the Santa Ana River corridor, where most natural drainages have been engineered for flood control and are lined with concrete. The proposed 69 kV routes also cross the Arlington Valley Channel, Riverside Canal, and Gage Canal, which supply water to communities in the Riverside area.

Floodplain

Due to urbanization and associated flood control engineering of natural drainages, the 100-year floodplain of the Santa Ana River is the only such floodplain present in the area of the proposed 69 kV routes (FEMA 2009). Where the proposed 69 kV route leaves the proposed Wildlife Substation, it is located adjacent to but above the floodplain of the Santa Ana River.

Wetlands

Wetlands along the proposed 69 kV routes are associated with Hole Lake, and occur at the southern end of Hole Lake. As previously described, this wetland is dominated by trees such as cottonwoods and willows and, while it receives water from runoff, may be visibly saturated only during the rainy season.

Groundwater

The proposed 69 kV routes are located within the Riverside-Arlington Sub-basin, in the Upper Santa Ana Valley Groundwater Basin. These sub-basins are described in California's Groundwater Bulletin 118.

Well data was obtained from the WMWD and analyzed to estimate local water table depths within the study area. Within the 69 kV area, WMWD has two wells for which information was available. The first well, near the intersection of Arlington Avenue and Tyler Street, recorded a depth-to-water measurement of 10.6 feet; the second well, near the proposed Wilderness/Wildlife substations, recorded an average depth-to-water measurement of 41.3 feet (WMWD 2008). Well data was not available for the southern portion of the proposed 69 kV routes.

Water Quality

Surface and groundwater quality objectives in the area of the proposed 69 kV subtransmission lines are described in the Water Quality Control Plan (Basin Plan) for the Santa Ana Region. Additional groundwater quality objectives are described in California's Groundwater Bulletin 118. Water quality objectives were established to protect the existing and potential beneficial uses of surface and groundwater.

While none of the drainages within the area of the proposed 69 kV routes have been listed in the basin plan, waters that have not been specifically listed are assigned the same beneficial uses as the waters to which they are tributary; *i.e.*, the Santa Ana River (RWQCB 1995). Accordingly, drainages in the vicinity of the proposed 69 kV routes have the beneficial uses of Agricultural Supply, Ground Water Recharge, Water Contact Recreation, Non-contact Water Recreation, Warm Freshwater Habitat, Wildlife Habitat, Rare, Threatened, or Endangered Species, and Spawning, Reproduction, and/or Early Development.

The Arlington-Riverside Groundwater Sub-basin has the beneficial use of Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, and Industrial Process Supply.

Wildlife/Wilderness 230 kV Substations

There are no water resources within the proposed footprint of the Wildlife/Wilderness substations. The substations' site is located in an industrial area on an upland bench of the Santa Ana River above the floodplain. The land cover of the site comprises manicured lawn, ruderal/disturbed field, and non-native grassland.

69 kV and 230 kV Substation Upgrades

RERC

There are no water resources within the existing footprint of the RERC.

Mountain View, Harvey Lynn, and Freeman Substations

There are no water resources within the existing footprints of the Harvey Lynn, Mountain View, RERC, and Freeman substations.

Mira Loma and Vista 230 kV Substations

There are no water resources within the existing footprint of the 230 kV substations that would be upgraded as part of the Proposed Project.

Regulatory Setting

Federal

Section 404 Clean Water Act (CWA). Waters of the U.S. including wetlands are subject to USACE jurisdiction under Section 404 of the CWA. A Section 404 permit is required for the discharge of dredged or fill material into Waters of the U.S. The Los Angeles District of the USACE would provide review and permitting services for this Proposed Project.

Section 401 CWA. Pursuant to Section 401 of the CWA, a water quality certification is required from the Santa Ana RWQCB for Section 404 permit activities. The Santa Ana RWQCB certifies that the discharge complies with state water quality standards and ensures that there is no net loss of wetlands through impact avoidance, minimization, and mitigation.

Section 303(d) Clean Water Act. Section 303(d) unites the water quality management strategies of the CWA. Section 303(d) requires that states make a list of waters that exceed the minimum level of pollutants put in place by the CWA. For waters on this list, the states must develop TMDLs, which account for all sources of the pollutants that caused the water to be listed. The TMDLs must account for contributions from both point sources and nonpoint sources, as defined by Section 502 of the CWA. In California, the State Water Resources Control Board (SWRCB) has interpreted state law (see Porter-Cologne Water Quality Control Act below) to require that implementation of TMDLs be addressed when incorporated into Basin Plans (water quality control plans).

Construction Stormwater Program. The State Water Resources Control Board and the nine RWQCBs implement water quality regulations under the federal CWA and the California Porter Cologne Water Quality Control Act. Existing water quality regulations require compliance with the National Pollutant Discharge Elimination System (NPDES) for discharges of stormwater runoff associated with construction activity.

Dischargers are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction and Land Disturbance Activities (Construction General Permit, 2009-2009-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed structures, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a monitoring program for visible and non-visible pollutants, and to changes in water quality such as substantial alteration in measures of the acidity or basicity of a solution (pH). When construction of the project is completed, the project

would submit a Notice of Termination as required by the Permit upon reaching stabilization of the project area.

State

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act defines “water quality objectives” as the allowable “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.” Thus, water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both Waters of the United States and Waters of the State.

Basin Plans. The SWRCB requires individual RWQCBs to develop Basin Plans (water quality control plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State’s antidegradation policy, and describe implementation programs to protect all waters in the Regions. In addition, Basin Plans incorporate by reference all applicable State and Regional Board plans and policies, and other pertinent water quality policies and regulations. The RTRP is under the jurisdiction of the Basin Plan of the Santa Ana Regional Water Quality Control Board.

Lake or Streambed Alteration Agreement. Sections 1601-1603 of the California Department of Fish and Game (CDFG) Code protect the natural flow, bed, channel, and bank of any river, stream, or lake designated by the CDFG, in which there is at any time an existing fish or wildlife resource, or from which these resources derive benefit. General project plans must be submitted to CDFG in sufficient detail to indicate the nature of a project for construction, if the project would:

- Divert, obstruct, or change a streambed, bank, or riparian zone
- Use material from the streambeds
- Result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a stream

The Inland Deserts Region of the CDFG serves Riverside and San Bernardino Counties.

Regional and Local

The Riverside County Flood Control and Water Conservation District is located in the western portion of Riverside County and regulates floodplain and drainage development. The District requires an encroachment permit for work within the District’s rights-of-way, which include the Santa Ana River floodplain. The permit application must include a copy of the approved and filed CEQA document (e.g., Environmental Impact Report), proof of compliance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), NPDES requirements, and compliance with all applicable regulatory permits.

Impact Assessment

Significance Threshold Criteria

Water resources impact determinations are based on significance criteria derived from CEQA Guidelines. Water resources impacts are considered significant if the project:

- a) Violates any water quality standards or waste discharge requirements, creates new sources of polluted runoff, or otherwise substantially degrades water quality.
- b) Substantially depletes groundwater supplies or interferes 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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- c) Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- d) Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- e) Creates or contributes runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provides substantial additional sources of polluted runoff.
- f) Has 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, and coastal) through direct removal, filling, hydrological interruption, or other means.
- g) Places 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.
- h) Places within a 100-year flood hazard area structures which would impede or redirect flood flows.
- i) Exposes 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.
- j) Results in or is subject to damage from inundation by seiche, tsunami, or mudflow.

When evaluating the Proposed Project's potential impacts to water resources, it was assumed that the Proposed Project would comply with all applicable federal, state, and local regulatory requirements that protect surface water and groundwater.

In accordance with the CWA, RPU and SCE would prepare and implement a SWPPP that would include BMPs to minimize impacts to surface water and ground water quality. The SWPPP would be prepared when the Proposed Project is approved, and after Proposed Project facilities and structures are designed and sited. The SWPPP must be submitted to the Santa Ana Regional Water Quality Control Board as part of the Construction General Permit.

Potential environmental effects on water resources were initially evaluated in the Initial Study prepared for the Proposed Project in January 2007, and re-evaluated in 2009.

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and

implementation of the Proposed Project ensures that potential environmental impacts are minimized through avoidance. Table 3.2.8-1 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to hydrology and water quality. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.8-1. ENVIRONMENTAL PROTECTION ELEMENTS – WATER RESOURCES

Environmental Protection Element	Description
HYDRO-01	Jurisdictional Waters: Infrastructure associated with the Proposed Project would be situated outside jurisdictional waters, as defined by the Clean Water Act (e.g., wetlands, stream channels and banks). <u>The Proposed Project has been designed to span and avoid wetlands and riparian areas. Work limits for tower construction, tower footprints, and pull and tension sites would be in upland locations. There is no dredge or fill action expected from construction of the Proposed Project.</u> If jurisdictional waters cannot be avoided, a Section 404 Nationwide 12 Permit will be obtained from the USACE and impacts to jurisdictional waters will be restricted to a total area of no more than 0.5 acre, as mandated by Permit requirements. <u>All permit conditions will be followed to ensure that impacts remain less than significant.</u>
HYDRO-02	Transmission Operations & Maintenance: Areas that do not offer perpetual access to transmission structures for routine operations and maintenance shall be avoided.
HYDRO-03	Dewatering Operations. If groundwater is encountered during construction as indicated by geologic borings, dewatering operations, as described in the construction SWPPP, shall be implemented. Groundwater shall not be discharged to storm drains or to Waters of the U.S., and shall be contained within the work area, using standard stormwater BMPs (e.g., straw wattles) and allowed to percolate back to the ground.
HYDRO-04	Maintaining Natural Drainage Patterns. The substations and poles shall be designed and engineered to facilitate natural drainage patterns to minimize or avoid any potential impacts to erosion and siltation.
HYDRO-05	New Impervious Areas Returned to Existing Conditions. New impervious areas associated with temporary construction would be returned to preconstruction conditions after the completion of project construction.

Environmental Impacts

This environmental impacts section evaluates potential effects of the Proposed Project based upon the CEQA significance criteria previously discussed. To supplement the analysis below, detailed evaluation of the water resources impacts resulting from construction and operation of the Proposed Project is provided in the Water Resources Technical Report in the Appendices of this DEIR.

230 kV Transmission Line

Construction, operation, and maintenance of the proposed 230 kV transmission line could potentially degrade water quality from stormwater runoff and accidental spills of petroleum, oil, and lubricant (POL); degrade and cause the loss of Waters of the U.S. including wetlands; and alter drainage patterns and floodplains. However, the Proposed Project would be constructed with implementation of EPEs as listed in Table 3.2.8-1, which would result in impacts as described below.

69 kV Subtransmission Lines

The proposed 69 kV subtransmission lines would be located in industrial, commercial, and suburban areas with few natural waterways or wetland areas. Construction and operation of the proposed 69 kV subtransmission lines would potentially degrade water quality from stormwater runoff and accidental spills of POL; construction could potentially degrade and cause the loss of Waters of the U.S. including wetlands; and alter drainage patterns. These potential impacts are similar to potential impacts resulting from construction of the proposed 230 kV transmission line.

Wildlife/Wilderness 230 kV Substations

Construction, operation, and maintenance of the proposed Wildlife/Wilderness substations would potentially degrade water quality of the Santa Ana River from increased stormwater runoff and accidental oil spills, alter drainage patterns of the site, and decrease groundwater recharge. These potential impacts are discussed below. No other impacts would occur.

69 kV Substation Upgrades

Upgrades to the four existing 69 kV substations would occur within the existing footprints of each substation, with the exception of minor pole re-alignments to accommodate the substation modifications. The substations are in urbanized areas, and ground disturbance would be minimal. Impacts to water resources resulting from the substation upgrades would be through stormwater runoff.

a) Violates any water quality standards or waste discharge requirements, creates new sources of polluted runoff, or otherwise substantially degrades water quality.

Less than Significant Impact.

230 kV Transmission Line

Indirect, short-term impacts to water quality could result from stormwater runoff during construction of the proposed 230 kV transmission line. Overhead transmission line construction requires ground-disturbing activities, including clearing and grading for structure installation and work areas, and access road construction. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters (*i.e.*, Santa Ana River and its tributaries), causing increased turbidity and channel sedimentation.

The Santa Ana RWQCB has identified construction-related erosion and sedimentation as a significant non-point source (NPS) pollution problem in the WMA; however, the Santa Ana River and its tributaries within the Proposed Project area are not 303(d) listed as sediment-impaired water bodies. Additional short-term discharges of sediment would not significantly contribute to the exceedance of the water quality standard for turbidity, which the RWQCB defines as “changes in turbidity which adversely affect beneficial uses.”

In addition to compliance with federal and state regulations, implementation of EPE HYDRO-4 would minimize impacts from ground-disturbing activities to less-than-significant levels. No mitigation is required.

Indirect, short-term impacts to water quality could result from accidental spills and leaks of POL

from equipment and vehicles used during construction of the Proposed Project. Concrete spills can also occur during concrete preparation and pouring of structure foundations. Such spills could run off-site into receiving waters and degrade water quality. With implementation of Non-stormwater Management, Material Management, and Materials Pollution Control BMPs, as specified in the required Proposed Project SWPPP, impacts would be less than significant. No mitigation is required.

Indirect, short-term impacts to water quality could result from accidental spills and leaks of POL from equipment and vehicles used during operation and maintenance of the Proposed Project. Such spills could run off-site into receiving waters and degrade water quality. Operation and maintenance of the transmission line and associated access roads would involve periodic inspections, and maintenance visits would be conducted on an as-needed basis. However, Best Available Control Measures (BACMs), such as oil spill kits, would be utilized by SCE maintenance crews to reduce or eliminate such spills and/or leaks; as such, operational impacts to water quality would be less than significant. No mitigation is required.

69 kV Subtransmission Lines

Indirect, short-term impacts to water quality could result from stormwater runoff during construction of the 69 kV subtransmission lines. Overhead subtransmission line construction requires ground-disturbing activities, including clearing and grading for structure installation and work areas, and access road construction. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters (i.e., Santa Ana River and its tributaries), causing increased turbidity and channel sedimentation.

The Santa Ana RWQCB has identified construction-related erosion and sedimentation as a significant NPS pollution problem in the WMA; however, the Santa Ana River and its tributaries within the Proposed Project area are not 303(d) listed as sediment-impaired water bodies. Additional short-term discharges of sediment would not significantly contribute to the exceedance of the water quality standard for sediment or turbidity.

In addition to compliance with federal and state regulations, the Proposed Project would implement EPE HYDRO-04, and impacts would be less than significant. No mitigation is required.

Indirect, short-term impacts to water quality could result from accidental spills and leaks of POL from equipment and vehicles used during construction of the Proposed Project. Concrete spills can also occur during concrete preparation and pouring of structure foundations. Such spills could run off-site into receiving waters and degrade water quality. However, non-stormwater Management, Material Management, and Materials Pollution Control BMPs (e.g., off-site vehicle and equipment cleaning, fueling, and maintenance, spill prevention and control measures, and hazardous waste management practices), as specified in the required Proposed Project SWPPP, would be implemented, and impacts would be less than significant. No mitigation is required.

Indirect, short-term impacts to water quality could result from accidental spills and leaks of POL from equipment and vehicles used during operation and maintenance of the Proposed Project. Such spills could run off-site into receiving waters and degrade water quality. Operation and maintenance of the proposed subtransmission line and associated access roads would involve

periodic inspections, and maintenance visits would be conducted on an as-needed basis. However, BACMs, such as oil spill kits, would be utilized by RPU maintenance crews to reduce or eliminate such spills and/or leaks; as such, operational impacts to water quality would be less than significant. No mitigation is required.

Wildlife/Wilderness 230 kV Substations

Removal of vegetation and grading activities at the proposed substations site would temporarily result in increased erosion and sediment runoff from the sites during construction. Implementation of the required SWPPP would protect receiving waters from stormwater runoff during and after construction. The Proposed Project would implement BMPs, including stabilization measures (*e.g.*, preservation of existing vegetation, geotextiles, non-vegetative stabilization methods), for disturbed areas as well as runoff and sediment controls, and the impacts would be less than significant. No mitigation is required.

Water quality of the Santa Ana River could be degraded by accidental spills from oil-filled electrical equipment (*i.e.*, circuit breakers, transformers, regulators, and capacitors) and storage facilities at the proposed Wildlife/Wilderness substations site. Spills could potentially migrate off-site and reach the Santa Ana River. The EPA's Oil Pollution Prevention regulation (40 CFR part 112) requires Spill Prevention, Countermeasure and Control (SPCC) plans for facilities with a total above-ground oil storage capacity of greater than 1,320 gallons to prevent oil spills from reaching Waters of the U.S.

As required by the EPA, the Proposed Project would prepare SPCC plans for the proposed substations site. The SPCC plans would include engineered and operational methods for preventing, containing, and controlling potential releases and provisions for a quick and safe cleanup. In general, the proposed substations site would be surfaced with gravel to reduce the migration of oil spills, and additional engineered methods (*e.g.*, concrete berms, Petro-Barriers) would prevent any spills from leaving the substation site. The proposed substations would also be gated with a combination of block walls and chain link fencing to prevent access to equipment by unauthorized persons. The plan would be certified by a professional engineer and a complete copy would be maintained on-site. With implementation of the SPCC plans for operation of the proposed substations there would be no impact to Waters of the U.S. from oil-related spills, and no mitigation is required.

69 kV Substation Upgrades

Excavation to accommodate re-alignment of poles would temporarily result in increased erosion and sediment runoff from the sites during construction. Implementation of the required SWPPP would protect receiving waters from stormwater runoff during and after construction. The Proposed Project would implement BMPs (*e.g.*, straw wattles, silt fencing) for runoff and sediment controls, and the impacts would be less than significant. No mitigation is required.

Water quality of the Santa Ana River could be degraded by accidental spills from oil-filled electrical equipment (*i.e.*, circuit breakers, transformers, regulators, and capacitors) and storage facilities at the proposed substation site. Spills could migrate off-site and reach the Santa Ana River via storm drains. The EPA's Oil Pollution Prevention regulation (40 CFR part 112) requires SPCC plans for facilities with a total above-ground oil storage capacity of greater than 1,320 gallons to prevent oil spills from reaching Waters of the U.S.

As required by the EPA, the Proposed Project would prepare SPCC plans for the proposed substations site. The SPCC plans would include engineered and operational methods for preventing, containing, and controlling potential releases and provisions for a quick and safe cleanup. In general, the proposed substations site would be surfaced with gravel to reduce the migration of oil spills, and additional engineered methods (*e.g.*, concrete berms, Petro-Barriers) would prevent any spills from leaving the substation site. The proposed substations would also be gated with a combination of block walls and chain link fencing to prevent access to equipment by unauthorized persons. The plan would be certified by a professional engineer and a complete copy would be maintained on-site. With implementation of the SPCC plans for operation of the proposed substations there would be no impact to Waters of the U.S. from oil-related spills, and no mitigation is required.

b) Substantially depletes groundwater supplies or interferes 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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Less than Significant Impact.

230 kV Transmission Line

Construction of the proposed 230 kV transmission line would potentially encounter groundwater along the Santa Ana River corridor. Boring for installation of the proposed transmission line structures would not occur to depths such that ~~they~~ would be likely to deplete the local groundwater table. An average 120-foot TSP would have a foundation of approximately 40 feet deep and approximately 6 feet in diameter, requiring excavation of approximately 1,130 cubic feet of soil. Should the bore hole fill completely with water and require dewatering, the volume of groundwater removed for foundation construction would be approximately 0.03 acre-feet (af). Groundwater storage capacity for the groundwater basins in the Proposed Project area ranges from 207,000 af to 5,325,000 af, and would not be significantly reduced by installation of transmission structures. Implementation of EPE HYDRO-03 would ensure that groundwater pumped from structure foundation excavations would be allowed to percolate into the soil within the work area. Correspondingly, installation of the proposed transmission line structures would not, individually or collectively, create impervious surfaces great enough to interfere with groundwater recharge resulting in a net deficit in aquifer volume. Installation of transmission structures would not interfere with nearby wells. Municipal and private well locations were obtained from WMWD; no wells are located within the Proposed Project ROW or within work areas, and the relatively small volume of water that would potentially be pumped from structure foundations would be too small to create a drawdown that would interfere with the activity of local municipal or private wells. Impacts to groundwater and wells would be less than significant, and no mitigation would be required.

Should groundwater be encountered during construction of the proposed RTRP, implementation of EPE HYDRO-03 would minimize impacts to groundwater to a less-than-significant level. No mitigation is required.

69 kV Subtransmission Lines

Construction of the proposed 69 kV subtransmission lines would potentially encounter groundwater along the Santa Ana River corridor. Poles would range from 65 to 90 feet in height, and the bottoms would vary in diameter from 1.5 to 3.0 feet for tangent and angle poles, and from 4.0 to 6.0 feet in diameter ~~for~~ for dead-end poles. Installation depths would vary depending on local soil, geological conditions, and structural requirements. Bore holes for the subtransmission poles would be smaller and shallower than those required for installation of the 230 kV structures; if groundwater is encountered and dewatering is required, the volume of water removed would likewise be smaller. Groundwater storage capacity for the groundwater basins in the Proposed Project area ranges from 207,000 af to 5,325,000 af, and would not be significantly reduced by installation of transmission structures.

Implementation of EPE HYDRO-03 would ensure that groundwater pumped from structure foundation excavations would be allowed to percolate into the soil within the work area. Correspondingly, installation of the proposed transmission line structures would not, individually or collectively, create impervious surfaces great enough to interfere with groundwater recharge resulting in a net deficit in aquifer volume. Installation of transmission structures would not interfere with nearby wells. Municipal and private well locations were obtained from WMWD; no wells are located within the Proposed Project ROW or within work areas, and the relatively small volume of water that would potentially be pumped from structure foundations would be too small to create a drawdown that would interfere with the activity of local municipal or private wells. Impacts to groundwater and wells would be less than significant, and no mitigation would be required.

Wildlife/Wilderness 230 kV Substations

The proposed substations would cover an area of approximately 9.5 acres, and would reduce stormwater infiltration capacity of the natural ground surface. Reduction of infiltration capacity would potentially interfere with groundwater recharge; however, implementation of EPE HYDRO-04 would require the proposed substations to be engineered to facilitate natural drainage patterns around the substation. As stated previously, groundwater storage capacity for the groundwater basins in the Proposed Project area ranges from 207,000 af to 5,325,000 af, and would not be significantly reduced by construction of the proposed substations. Groundwater levels in the vicinity of the proposed substations ranges from approximately 35 feet to 50 feet, and it is unlikely that groundwater would be encountered during construction of the proposed substations. Should groundwater be encountered, however, groundwater storage capacity would not be significantly reduced by installation of substation components, as explained previously. Implementation of EPE HYDRO-03 would ensure that any groundwater pumped from substation excavations would be allowed to percolate into the soil within the work area. Likewise, the relatively small volume of water that would potentially be pumped from structure foundations would be too small to create a drawdown that would interfere with the activity of local municipal or private wells. Impacts to groundwater and wells would be less than significant, and no mitigation would be required.

69 kV Substation Upgrades

Upgrades to the substations do not involve the use of groundwater. In addition, upgrades would occur within the existing footprints of the substations, and would not reduce stormwater infiltration capacity of the natural ground surface.

c) Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

Less than Significant Impact.

230 kV Transmission Line

Direct, temporary impacts to existing drainage patterns may result from construction of the temporary access roads used to access the transmission line ROW during construction. Minor drainage diversions may result from grading; however, stream and river courses would not be altered. Temporary roads would be removed when construction is completed, and the ground would be restored to its original contours.

Permanent access roads would be constructed as all-weather/all-season. With use of pervious materials for access road construction, the volume and rate of stormwater runoff is not expected to increase substantially from pre-construction levels in a manner that would result in off-site erosion and flooding.

Any work within the Santa Ana River watershed in areas that are under the jurisdiction of the Riverside County Flood Control and Water Conservation District would require an encroachment permit. The required SWPPP would also address stormwater management.

Implementation of EPEs HYDRO-04 and HYDRO-05 and stormwater management BMPs specified in the required SWPPP would minimize erosion or siltation on- or off-site and maintain natural drainage patterns and restore temporary impervious areas (e.g., work areas) to preconstruction conditions. The Proposed Project would not result in new impervious areas that would result in stormwater discharges which would exceed the capacity of existing or planned stormwater drainage systems. Impacts related to temporary alteration of drainage patterns would be less than significant. No mitigation is required.

69 kV Subtransmission Lines

Direct, temporary impacts to existing drainage patterns may result from undergrounding of the 69 kV line down Doolittle Street, as well as from construction of the temporary roads used to access the proposed transmission line ROW during construction; however, the majority of the proposed 69 kV line would be located in previously disturbed areas or along City streets, limiting the number of temporary roads required for construction. ~~Temporary roads would be removed~~ When construction is completed, temporary roads would be removed, and the ground ~~all temporarily disturbed areas~~ would be restored to ~~its~~ their original contours.

Given the siting of the proposed 69 kV subtransmission lines within developed areas, permanent access roads would not be required. The volume and rate of stormwater runoff is not expected to increase substantially from pre-construction levels in a manner that would result in off-site erosion and flooding.

Any work within the Santa Ana River watershed under the jurisdiction of the Riverside County Flood Control and Water Conservation District would require an encroachment permit. The required SWPPP would also address stormwater management.

The Proposed Project would implement EPE HYDRO-04 and HYDRO-05, which would minimize runoff that could result in substantial erosion or siltation on- or off-site, or exceedance of the capacity of existing or planned stormwater drainage systems. Implementation of EPE HYDRO-05 would also minimize potential impacts related to temporary alteration of drainage patterns. Impacts would be less than significant, and no mitigation would be required.

Wildlife/Wilderness 230 kV Substations

Direct, permanent impacts to existing stormwater drainage and indirect, temporary impacts to water quality could potentially result from the construction of the proposed substations. The footprint of the proposed substations would be approximately twelve acres. The site will require substantial clearing and grading (cut and fill) to achieve the designed grade for the site. The proposed Wilderness/Wildlife substations would be surfaced with crushed rock, and a paved asphalt road for access to the proposed Wildlife substation would be built. Concrete foundations would be constructed to support electrical equipment and structures.

Development of the proposed substations would reduce the stormwater infiltration capacity of the ground surface, resulting in increased stormwater runoff flows from pre-construction levels. As part of the required SWPPP, the Proposed Project would implement drainage facilities to manage increased stormwater flows to existing and planned stormwater drainage systems, and would implement stormwater management controls (*e.g.*, retention/detention ponds, infiltration measures) as part of substation design. Impacts resulting from increased stormwater runoff and alteration of drainage patterns would be less than significant. No mitigation is required.

69 kV Substation Upgrades

The substations are located in urbanized areas, and upgrades to the substations would occur within the existing footprints of each substation, and do not involve ground-disturbing activities that would result in alteration of drainage patterns, drainage patterns that would result in flooding on- or off-site or in erosion or siltation on- or off-site.

Implementation of the required SWPPP would protect receiving waters from stormwater runoff during and after construction. The Proposed Project would implement BMPs for runoff and sediment controls, and the impacts would be less than significant. No mitigation is required.

Water quality of the Santa Ana River could be degraded by accidental spills from oil-filled electrical equipment (*i.e.*, circuit breakers, transformers, regulators, and capacitors) and storage facilities at the proposed substation site. Spills could migrate off-site and reach the Santa Ana River via storm drains. The EPA's Oil Pollution Prevention regulation (40 CFR part 112) requires SPCC plans for facilities with a total above-ground oil storage capacity of greater than 1,320 gallons to prevent oil spills from reaching Waters of the U.S.

As required by the EPA, the Proposed Project would prepare SPCC plans for the proposed substations site. The SPCC plans would include engineered and operational methods for preventing, containing, and controlling potential releases and provisions for a quick and safe cleanup. In general, the proposed substations site would be surfaced with gravel to reduce the migration of oil spills, and additional engineered methods (*e.g.*, concrete berms, Petro-Barriers) would prevent any spills from leaving the substation site. The proposed substations would also

be gated with a combination of block walls and chain link fencing to prevent access to equipment by unauthorized persons. The plan would be certified by a professional engineer and a complete copy would be maintained on-site. With implementation of the SPCC plans for operation of the proposed substations there would be no impact to Waters of the U.S. from oil-related spills, and no mitigation is required.

d) Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant Impact.

See discussion above under criterion c) for a discussion of the less than significant impacts for each component of the Proposed Project.

e) Creates or contributes runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provides substantial additional sources of polluted runoff;

Less than Significant Impact.

See discussion above under criterion c) for a discussion of the less than significant impacts for each component of the Proposed Project.

f) Has 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, and coastal) through direct removal, filling, hydrological interruption, or other means.

Less than Significant Impact.

230 kV Transmission Line

Based on design level data and as a worst case analysis, direct impact to Waters of the U.S. could result from ground disturbance related to the installation of tower and pole structure foundations, and pulling and tensioning sites. ~~Assembly areas~~ One proposed assembly area for ~~two~~ a lattice structures and ~~one TSP~~ structure has potential to temporarily impact approximately 0.42 acre of ~~NWI~~ wetlands, based on NWI data (please note that this impact is not the same impact regarding riparian vegetation identified in the biological resources section. Riparian vegetation is considered a general biological term in comparison to a specific NWI wetland. In general terms, riparian vegetation may or may not be considered an actual wetland~~=~~). Field reconnaissance revealed that ~~one of the wetlands~~ in question, located in a drainage northeast of LongHole Lake, is separated from these disturbance areas by elevational differences. ~~The second wetland, located adjacent to the City of Riverside Water Treatment Plant, and has been filled in and is currently used as a parking lot. Because of these existing conditions, neither wetland would~~ no potential to be affected by construction or operation of the Proposed Project. Additional mapped wetlands adjacent to the Proposed 230 kV ROW are separated from the Proposed Project by steep bluffs along the Santa Ana River.

Direct, short- to long-term impacts to wetland vegetation, hydrology, and soils could result from temporary work areas (e.g., pulling and tensioning) associated with construction of the proposed

transmission line. Pulling and tensioning sites with potential to impact wetlands would be located north of the RERC Substation and northwest of the Riverside Agricultural Park. Work areas would be cleared to some extent for the safe operation of construction equipment, which would adversely impact wetland vegetation. Operation of heavy equipment has the potential to cause soil compaction and rutting, which could in turn alter wetland hydrology. However, as stated above, these temporary work areas are on high ground above the wetlands, and there would be no impact.

The Jurupa Area Plan of the MSHCP requires conservation of existing wetlands in the Jurupa Area Plan portion of the Santa Ana River, with a focus on conserving existing habitats in the river. Potential disturbance areas adjacent to Hole Lake would be located within Criteria Cell 617, where conservation is focused on lands connecting existing connected wetland habitat along the Santa Ana River.

The Proposed 230 kV transmission line would entirely span the Santa Ana River corridor at the proposed crossing point and not affect any riverine wetlands.

69 kV Subtransmission Lines

Based on design level data and as a worst case analysis, direct impact to the NWI wetland at Hole Lake could result from vegetation clearing for construction of the proposed transmission line ROW. These impacts could include direct, short- to long-term impacts to wetland vegetation, hydrology, and soils could result from vegetation clearing within temporary work areas (e.g., pulling and tensioning and guard structure sites) associated with construction of the proposed subtransmission lines in the vicinity of Hole Lake. Work areas would be cleared to some extent for the safe operation of construction equipment, which could have a potential adverse impact to approximately 0.1 acre of NWI wetland vegetation. Operation of heavy equipment has the potential to cause soil compaction and rutting, which could in turn alter wetland hydrology.

Due to the linear nature of this NWI wetland, temporary work areas would be located outside of the wetland area and above the bed and banks of the stream, and potential impacts to wetland hydrology and soils resulting from soil compaction and rutting would be avoided. High vegetation, such as palm trees, within the wetland may require trimming to allow for safe crossing by the new subtransmission line; however, clearing of native riparian or wetland vegetation within this wetland would not be necessary, and no impact would occur.

The 69 kV portion of the Proposed Project is located within the Santa Ana River – South Subunit of the Cities of Riverside and Norco Area Plan of the MSHCP. This Subunit requires conservation of existing wetlands along the Santa Ana River, with a focus on conserving existing Habitats in the river. Potential disturbance areas adjacent to the NWI wetland adjacent to Hole Lake would not be located within any criteria cell. A portion of the 69 kV line from the Wilderness/Wildlife Substations would cross through Criteria Cell 621, where conservation is focused on expanding existing conserved wetlands along the Santa Ana River; however, the Proposed Project would be located in a developed industrial area on high ground above the river, and would not affect wetland habitat along the Santa Ana River.

Wetland boundaries within both portions of the Proposed Project would be field-verified through jurisdictional wetland delineation during the permitting phase of the Proposed Project, prior to

construction. Section 404 of the CWA regulates discharge of dredged or fill material into Waters of the U.S., including wetlands. Based on the general available design data, the Proposed Project would require a Section 404 Nationwide 12 Permit, which allows construction of utility line projects provided the Proposed Project does not result in the loss of greater than 0.5 acre of Waters of the U.S., including wetlands. However, it is expected that impacts to wetlands can be avoided during construction through adjusting field work limits, construction practices, and use of Best Management Practices for erosion control. Therefore, the Proposed Project is determined to not affect wetland habitat; should field conditions require temporary impact to this resource, then discretionary permitting would be required. Impacts would be mitigated per the regulatory agency permit and consistent with requirements of the MSHCP and Determination of Biological Equivalent or Superior Preservation (DBESP) review process for Riparian / Riverine habitat that, for the Proposed Project area, would include potential ~~Jurisdictional Waters and Wetlands of the U.S.~~ wetlands and other jurisdictional waters.

To maintain compliance with federal and local regulations, including the requirements of the Section 404 Nationwide 12 Permit, EPE HYDRO-01 would require the Proposed Project to avoid impacts to delineated wetlands and Waters of the U.S., and EPEs HYDRO-04 and HYDRO-05 would preserve or return surface hydrology and vegetation to preconstruction conditions. Additionally, Erosion Control BMPs as defined in the required SWPPP and applicable permit conditions of the Nationwide 12 Permit would minimize impacts to wetlands and Waters of the U.S. due to the discharge of fill material, including sediment-laden stormwater discharges. Impacts to Waters of the U.S., including wetlands, would be less than significant, and no mitigation would be required.

Wildlife/Wilderness 230 kV Substations

The proposed substations would be located on an upland site, where no wetlands occur.

69 kV Substation Upgrades

The substations are located in urbanized areas, and upgrades to the substations would occur within the existing footprints of each substation. No wetlands would be impacted.

No marshes, vernal pools or coastal wetlands are located in the Proposed Project ROWs, in areas likely to experience ground disturbance, or near any project elements. None of these types of wetlands would be impacted.

g) Places 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.

No Impact.

230 kV Transmission Line

The Proposed Project does not involve placement of housing within a flood hazard zone.

69 kV Subtransmission Lines

The Proposed Project does not involve placement of housing within a flood hazard zone.

Wildlife/Wilderness 230 kV Substations

The Proposed Project does not involve placement of housing within a flood hazard zone.

69 kV Substation Upgrades

The Proposed Project does not involve placement of housing within a flood hazard zone.

h) Places within a 100-year flood hazard area structures which would impede or redirect flood flows.

Less than Significant Impact.

230 kV Transmission Line

As required by final engineering design, the proposed transmission line structures and associated infrastructure would be placed within the 100-year floodplains of the Santa Ana River and other drainages. Specifically, seven TSPs and five lattice structures would be placed within 100-year floodplain of the Santa Ana River. Foundations for these structures would have average areas of 63.6 square feet for TSPs and 50.3 square feet for lattice structures, with height of each base varying from 0 to 4 feet above ground level. The Proposed Project parallels the river for approximately 5 miles; along that expanse, the 100-year floodplain varies in width from approximately 0.15 mile to 1 mile and the base flood elevation decreases from 718 feet above mean sea level (msl) to 605 feet. Addition of “fill,” as presented by installation of transmission structure bases, would be small relative to the greater area of the floodplain, and would not displace floodwater sufficient to increase base flood elevation.

The Proposed Project would comply with regional and federal regulations restricting construction that would increase base flood elevation, and would implement EPEs HYDRO-02 and HYDRO-05. Potential for the transmission structures or their bases to impede or redirect flood flows or raise the flood elevation is less than significant, and impacts resulting from placement of structures in a floodplain would be less than significant. No mitigation is required.

69 kV Subtransmission Lines

As required by final engineering design, the proposed transmission line structures would not be placed within the 100-year floodplain of the Santa Ana River and other drainages; therefore, these structures would be unlikely to impede or redirect flood flows and would not raise the flood elevation.

The Proposed Project would comply with regional and federal regulations, and would implement EPEs HYDRO-02 and HYDRO-05 to minimize impacts to less-than-significant levels. No mitigation is required.

Wildlife/Wilderness 230 kV Substations

The proposed substations would not be placed within a flood hazard zone.

69 kV Substation Upgrades

Upgrades to the substations would occur within the existing footprints of each substation, which are not within a flood hazard zone.

i) Exposes 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 Impact.

230 kV Transmission Line

The Proposed Project would not alter floodways, increase human presence in flood-prone areas, or encroach upon levees or dams.

69 kV Subtransmission Lines

The Proposed Project would not alter floodways, increase human presence in flood-prone areas, or encroach upon levees or dams.

Wildlife/Wilderness 230 kV Substations

The Proposed Project would not alter floodways, increase human presence in flood-prone areas, or encroach upon levees or dams.

69 kV Substation Upgrades

The Proposed Project would not alter floodways, increase human presence in flood-prone areas, or encroach upon levees or dams.

j) Results in or is subject to damage from inundation by seiche, tsunami, or mudflow.

Less than Significant Impact.

230 kV Transmission Line

The Proposed Project would not be located in an area subject to damage by seiche or tsunami, it is located in an area subject to inundation by mudflow. Although the majority of the Proposed Project is located on relatively high ground, transmission structures located within the 100-year floodplain could potentially be subject to mudflow, but the area of potential impact would be limited, and generally defined by the 100-year floodplain. By definition, the 100-year floodplains are subject to inundation by the one percent annual chance flood event (i.e., by a storm event that has a one percent chance of occurring during any given year), and impacts would be less than significant. No mitigation is required.

69 kV Subtransmission Lines

Although the Proposed Project is located in an area subject to inundation by mudflow, the Proposed Project is located on relatively high ground, and would not be subject to damage from inundation by seiche, tsunami, or mudflow.

Wildlife/Wilderness 230 kV Substations

The Proposed Project is not located in an area subject to inundation by seiche, tsunami, or mudflow.

69 kV Substation Upgrades

The Proposed Project is not located in an area subject to inundation by seiche, tsunami, or mudflow.

Summary of Impact Determinations

With implementation of Proposed Project EPEs, BMPs as required by the SWPPP, and conformance to the standard Best Available Control Measures of both SCE and RPU, impact levels to water resources would be less than significant. No mitigations are required.

Significant Unavoidable Impacts

With the implementation of EPEs, the Proposed Project will not result in any significant unavoidable impacts to water resources within the Proposed Project area.

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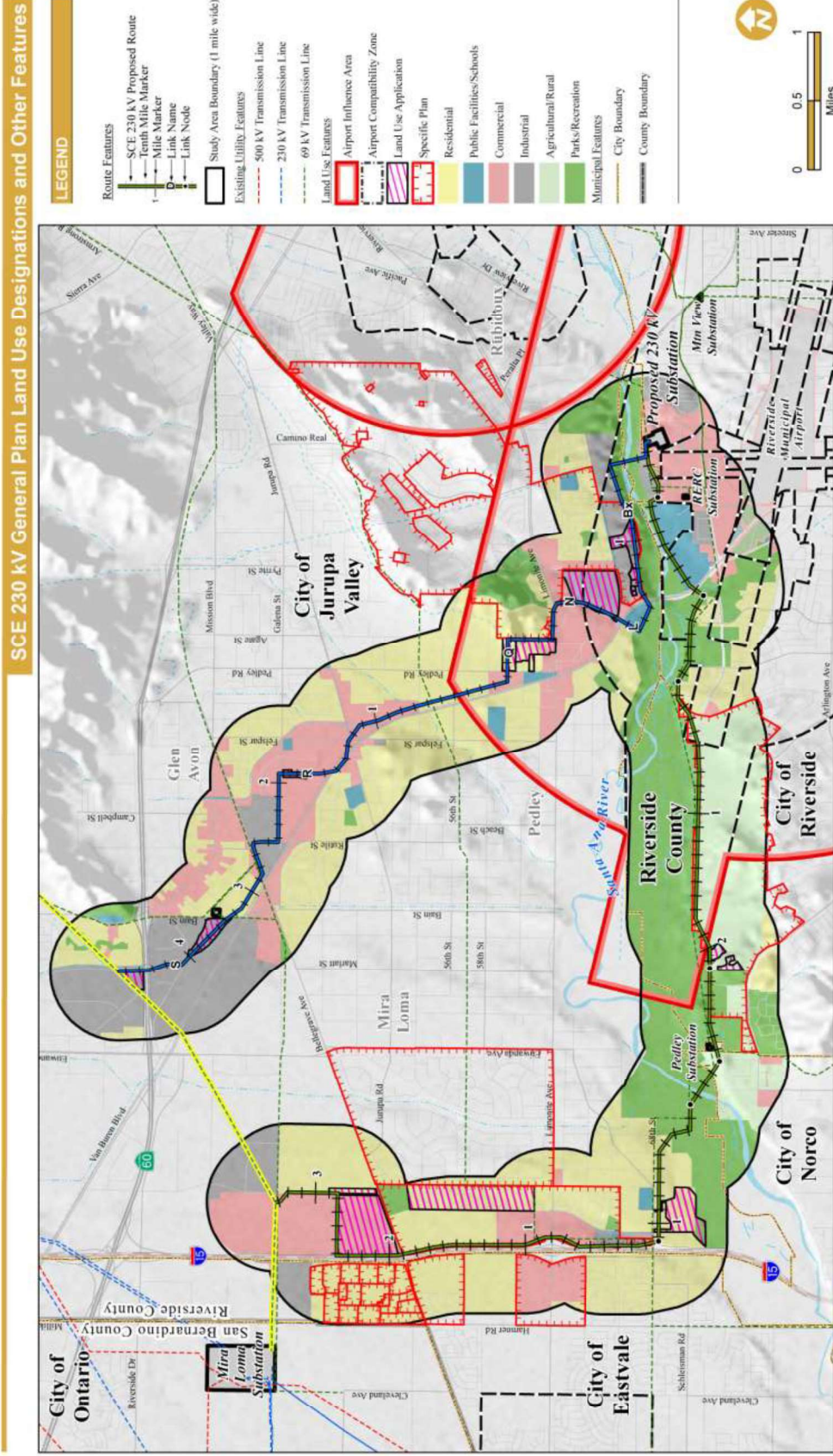
3.2.9 LAND USE AND PLANNING

This section addresses potential impacts to land uses in the Proposed Project area. The analysis considers potential impacts resulting from the construction, operation, and maintenance of the Proposed Project. Land use issues include compatibility of the Proposed Project with adjacent land uses, and potential conflicts with applicable plans and policies. This evaluation is based on a review of local land use plans and policies.

Environmental Setting

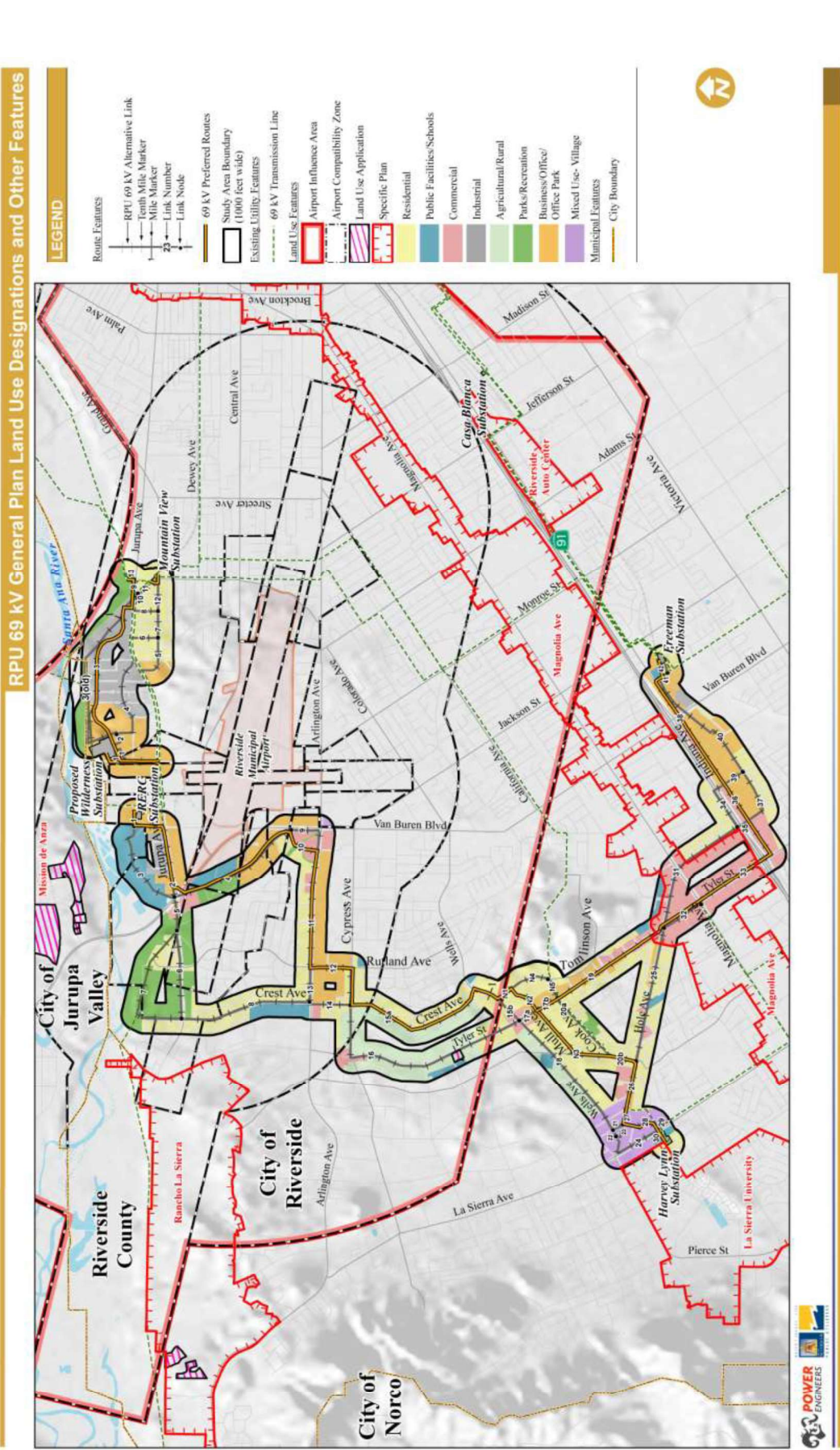
Proposed Project components are located within ~~three~~four governmental jurisdictions: the City of Riverside, the City of Jurupa Valley, and the City of Norco~~o~~, along with unincorporated areas of Riverside County. The City of Jurupa Valley was recently incorporated in July 2011. The newly formed city ~~is adopting the current will use Riverside County~~County's Zoning Ordinance and General Plan elements that would be applicable to the City of Jurupa Valley; implement planning policies and regulations until they adopt their own (Lehotsky 2011). Therefore, the analysis within this DEIR includes Riverside County Zoning Ordinance and General Plan designations ~~and~~consistency reviews for impact analysis purposes. The Proposed Project area is characterized by rural, urban and suburban development intermixed with agriculture and undeveloped lands. Rapid population growth in the Proposed Project area has resulted in increased development with accompanying changes in land use. The natural topography of the Proposed Project area is generally valley lowland intersected by rolling hills. The Santa Ana River represents an important recreational, habitat, and visual resource. The Santa Ana River watershed is the focus of extensive habitat conservation and restoration efforts. Figures 3.2.9-1 and 3.2.9-2 show the General Plan Land Use Designations in the Proposed Project area.

FIGURE 3.2.9-1. SCE 230 KV EXISTING AND PLANNED LAND USE (REVISED)



RIVERSIDE TRANSMISSION RELIABILITY PROJECT

FIGURE 3.2.9-2. RPU 69 KV EXISTING AND PLANNED LAND USE (REVISED)



RIVERSIDE TRANSMISSION RELIABILITY PROJECT



Existing Land Uses

The Riverside County General Plan divides the county into eastern and western sections based on the geographical division formed by the San Jacinto and Santa Rosa Mountains. The Proposed Project falls within the western section of Riverside County, where approximately 82 percent of the area is designated for Agricultural, Rural, Rural Community, or Open Space uses, as presented in Table 3.2.9-1.

TABLE 3.2.9-1. UNINCORPORATED RIVERSIDE COUNTY GENERAL PLAN LAND USE

General Plan Foundation Component	Western Riverside County Acreage	Percent of Western Riverside County	Total Riverside County Acreage	Percent of Total Riverside County
Agriculture	22,603	2 percent	180,178	4 percent
Rural	278,913	22 percent	326,294	8 percent
Rural Community	73,147	6 percent	77,167	2 percent
Open Space	657,979	52 percent	3,297,992	78 percent
Community Development	137,807	11 percent	200,304	5 percent
Other	87,253	7 percent	119,387	3 percent
Total	1,257,702	100 percent	4,201,322	100 percent

NOTES: The General Plan Foundation Components describe the overall nature and intent of each of the five General Plan land uses: Agriculture, Rural, Rural Community, Open Space, and Community Development. It includes the March Inland Port, Indian Lands, and Major Roadways, but does not include cities within Riverside County. Source: Riverside County, 2008a (Table LU-1)

The County has ~~24~~²⁸ incorporated cities. Of the County's residents, 72 percent live in the incorporated cities, and 28 percent reside in the unincorporated areas (Riverside County General Plan, 2003). Riverside County had a population of 1,949,419 in 2005 (Census Bureau, 2007). Riverside County has recently experienced rapid population growth, which is expected to continue.

230 kV Transmission Line

Collectively, the Proposed Project routes and study corridors traverse ~~three~~^{four} jurisdictions: unincorporated Riverside County, the City of Jurupa Valley to the north, the City of Riverside to the south, and the City of Norco to the west. The Santa Ana River generally bisects the unincorporated and incorporated areas.

City of Jurupa Valley and Unincorporated Riverside County ~~(Incorporated City of Jurupa Valley as of July 2011)~~

The Jurupa Valley geographic area includes a mix of high- and low-density residential, rural farming and other agricultural activities, and a mix of commercial, public, and industrial uses. Two primary transportation corridors traverse the area: Interstate 15 (I-15), which runs north and south, and State Route 60 (SR-60), which runs east and west. In recent years, residential development and economic activity have increased, in particular in the areas adjacent to I-15 and SR-60. Flabob Airport, a privately owned airport open to the public, is located north of the Santa Ana River in the ~~unincorporated~~ community of Rubidoux.

The largely low-density community of Glen Avon is located in the central portion of the area, just south of SR-60. The rural community area southerly of Jurupa Road also provides equestrian opportunities. In addition, Van Buren Boulevard accommodates scattered commercial, industrial, and higher-intensity residential development. Pedley contains a variety of rural and suburban-style residential neighborhoods and a commercial district along Limonite Avenue. Industrial uses

are located along the banks of the Santa Ana River. A Metrolink station is located near Limonite Avenue and Van Buren Boulevard. The Mira Loma community is largely rural with several equestrian trails. A large area of land in northwest Mira Loma near the I-15/SR-60 intersection is converting from dairy to industrial, warehousing, and truck distribution land uses.

Agricultural activities, including dairies, field crops, and ranches, have been the primary land use in the area, though these activities have been giving way to more urban types of development, particularly residential and commercial. The conversion from predominantly agricultural to urban land uses will likely continue for the foreseeable future. Development on both sides of I-15 north of Bellegrave Avenue is intermittent; parcels identified as light industrial and/or commercial are interspersed with undeveloped land.

City of Riverside

The Proposed Project crosses the northwestern portion of the City. Land uses in the area include residential, commercial, office, industrial/manufacturing, and open spaces associated with the Santa Ana River, which forms most of the City's northern border. The Riverside Municipal Airport is also located in the area. The airport is classified as a Reliever General Aviation Airport and is owned and operated by the City. The City of Riverside Airport Commission acts as an advisory board and oversees airport operation. Airport development is programmed in the Riverside Airport Master Plan, which was last updated in 2009. Two heliports are located at the Riverside Municipal Airport and one at a trauma center (Riverside Community Hospital).

City of Norco

The Proposed Project traverses a small portion of northeastern Norco. Land uses crossed are designated by the City of Norco General Plan as agricultural and residential agricultural.

Existing land uses (improvements) traversed by the Proposed Project are presented in the Land Use Technical Report included in the Technical Appendices to this DEIR.

City of Jurupa Valley

~~The Riverside Local Agency Formation Commission (LAFCO) received an application requesting incorporation of the Jurupa Valley community and related minor organizational changes. Riverside LAFCO approved the request in July 2010. Voting for incorporation was approved on March 8, 2011; incorporation occurred on July 1, 2011.~~

~~Section 57376 of the California Government Code requires that, once incorporation takes place, a newly formed city must immediately adopt all existing County zoning ordinances for a period of 120 days or until superseding ordinances are enacted, whichever occurs first. The City of Jurupa Valley would use the Riverside County General Plan and Zoning Code as its foundation until the newly formed City develops its own general plan and zoning code.~~

~~The City of Jurupa Valley would likely adopt the policies and goals delineated in the County of Riverside General Plan and Jurupa Area Land Use Plan, including those related to land use, until the City develops its own General Plan. Therefore, the newly incorporated city would continue to be in compliance with the Policies and Goals of the Riverside County General Plan's Land Use Element. The policies have been designed to address many levels of issues and policies (i.e., land use administration, efficient use of land, community design, project design, provision for infrastructure and public facilities and services, land use compatibility, economic development, and open space, habitat and natural resource preservation).~~

69 kV Subtransmission Lines

The proposed 69 kV subtransmission lines traverse land within the City of Riverside. For the most part, the 69 kV subtransmission lines would be constructed within City of Riverside public streets. City of Riverside neighborhoods located within the study corridors are presented below along with a brief summary of their characteristics.

Grand

The neighborhood largely contains residential, park and open space areas. The neighborhood's commercial uses are primarily concentrated along Jurupa Avenue.

Airport

The Airport neighborhood abuts the Santa Ana River, with Arlington Avenue forming the southern boundary and Van Buren Boulevard and Central and Jurupa avenues representing the major roadways traversing the area. Van Buren Boulevard serves as a northern gateway into Riverside across the Santa Ana River.

Riverside Municipal Airport, owned and operated by the City of Riverside, is the neighborhood's dominant feature. The Airport provides private general aviation services, houses the Riverside Police Department's Aviation Unit, and hosts occasional military use (usually helicopter flights associated with the region's military bases).

Arlanza

Arlanza's residential areas range from semi-rural homesites to high-density apartments. The neighborhood also has significant industrial development along Arlington Avenue, as well as commercial development along the western edge of Van Buren Boulevard. The Santa Ana River forms the neighborhood's northern edge, while its southern edge is punctuated by rolling hillsides.

La Sierra Acres

The neighborhood contains a number of large-lot properties, which afford a rural lifestyle. Land use policy supports maintaining this semi-rural character. The far north of the neighborhood slopes up to the La Sierra Hills, the City's northern border, and then down to the Santa Ana River basin. This area, known as Rancho La Sierra or the River Ranch, was specifically mentioned in Measure C, passed by Riverside voters in 1987. Measure C stipulated that any new housing units in the La Sierra lands shall be clustered in a manner "to protect the river bottom wildlife refuge, the agricultural land along the river bluffs and the open-space character of the area."

La Sierra Hills

Located between the La Sierra Hills to the west and the semi-rural La Sierra Acres to the east, the neighborhood retains a rural-like character.

La Sierra

Stretching between the city's western edge and the Arlington area, La Sierra is a large and complex neighborhood that forms the western gateway to the City. Major features include La Sierra University, the Galleria at Tyler, Kaiser Hospital, and the Five Points area.

La Sierra also includes industrial areas, particularly along State Route 91 (SR-91), as well as

residential neighborhoods. La Sierra's residential districts range in intensity from rural to medium-high density along Magnolia Avenue and near La Sierra University.

Arlington

Arlington, one of Riverside's oldest neighborhoods, retains a village character. Most of Arlington's residential areas lie north of the Village.

Ramona

The Ramona neighborhood lies between two of Riverside's in-town "village" neighborhoods, Arlington and Magnolia Center. Along Magnolia Avenue, the neighborhood includes two of Riverside's major educational institutions: the Sherman Indian School and California Baptist University. The close proximity of these uses creates an "institutional corridor" along Magnolia Avenue.

La Sierra South

Similar to the La Sierra neighborhood to the north, La Sierra South has access to the SR-91 and together comprise the city's major western gateway. La Sierra South also contains a blend of residential, commercial and industrial uses.

Arlington South

Arlington South includes a range of land uses between SR-91 and Victoria Avenue. At its northern end, the neighborhood contains extensive commercial and industrial development along the freeway and in the vicinity of the Van Buren Boulevard/Indiana Avenue intersection.

Existing land uses traversed by the 69 kV subtransmission lines are presented in the Land Use Technical Report included in the Technical Appendices to this DEIR.

Wildlife and Wilderness 230 kV Substations

The proposed Wildlife and Wilderness Substation sites are located along the south side of the Santa Ana River in the City of Riverside. The proposed sites are adjacent to each other and located on land owned by the City of Riverside. The sites are located in a light industrial/manufacturing area and are currently being leased by the Toro Company for turf irrigation/cutting uses.

Existing land uses in the vicinity of the substation sites, by direction, include:

- *North:* Santa Ana River corridor, including the Santa Ana River Wetlands Mitigation Bank area, and unincorporated Riverside County land;
- *South:* Union Pacific Railroad, Riverside Municipal Airport, industrial and commercial uses, and a pet adoption facility;
- *East:* Union Pacific Railroad, industrial and commercial uses, and single-family residences; and
- *West:* Storage yards, commercial businesses, City of Riverside Wastewater Treatment Plant, small generation plant, and residences.

69 kV Substation Upgrades (RERC, Mountain View, Harvey Lynn, Freeman)

The existing 69 kV substations are located in an urban setting within the City of Riverside. Upgrades would require the installation, operation, and maintenance of new electrical equipment. Brief descriptions of the substations are provided below:

RERC Substation: This substation is located in a commercial and industrial area. The Santa Ana River Trail is located approximately 1,100 feet to the north.

Mountain View Substation: This substation is located in a primarily residential neighborhood.

Harvey Lynn Substation: This substation is located at the interface of a commercial and residential area on La Sierra Avenue. Residences are located to the south and southwest on Greenhurst Drive, Schuyler Ave., and Riverpoint Drive.

Freeman Substation: This substation is located in a primarily commercial area with some residences located to the southeast and northwest.

Fiber Optic Telecommunications System

The fiber optic cable would be installed on existing overhead distribution poles, on new 230 kV transmission structures, or in new underground conduit. New underground fiber cable ROWs along the existing distribution pole line would be required for installation of the underground fiber optic cable.

Planned Land Uses

Jurisdiction, general plan land use designations, and zoning associated with the Proposed Project are presented in the Land Use Technical Report included in the Technical Appendices to this DEIR. Much of the 69 kV subtransmission lines would be installed within existing public road ROWs.

Planned land use associated with land developments and/or entitlements traversed by the Proposed Project are presented in the Land Use Technical Report included in the Technical Appendices to this DEIR. Such actions may include the eventual processing of development-level land use proposals (e.g., specific plans), as well as project-level review and approval of land use maps, such as tract and parcel maps, plot plans, conditional use permits, and other discretionary actions related to land use implementation. Changes to zoning may also occur.

~~The Proposed Project also traverses Riverside County (Jurupa Valley geographic area) and City of Riverside (Riverside Airport, La Sierra/Arlanza, Arlington) Redevelopment Areas.~~

Regulatory Setting

The following section defines regulations, plans, and standards that are relevant to the Proposed Project and considers whether the Proposed Project would be consistent with those plans.

Federal

Federal Aviation Administration, Federal Aviation Regulation Title 14, Part 77

The Federal Aviation Administration (FAA) issues and enforces regulations related to air traffic control and the assignment and use of airspace. The FAA's regulations are found in the Federal Aviation Regulations (FAR). FAR Title 14, Part 77, establishes the standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (approximately 3.8 miles) of an airport.

The standards and notification requirements of FAR Title 14 Part 77 are intended to: 1) evaluate the effect of the construction or alteration of structures on airport operating procedures; 2) determine if the construction or alteration would result in a potential hazard to air navigation; and 3) identify measures to enhance safety. The FAA requires notification through the filing of the two part FAA Form 7460 (7460-1 Notice of Proposed Construction or Alteration, and 7460-2 Supplemental Notice), if any of the following criteria are met due to implementation of a proposed action (Title 14 Part 77.13) (FAA, 2007):

- Any construction or alteration [of a structure or object] of more than 200 feet in height above the ground level at its site
- Any construction or alteration [of a structure or object] of greater height than an imaginary surface extending outward and upward at one of the following slopes:
 - 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport with at least one runway more than 3,200 feet in actual length, excluding heliports
 - 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified with its longest runway no more than 3,200 feet in actual length, excluding heliports
 - 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport
- Any proposed highway, railroad, or other traverse way for mobile objects, with a height which would exceed the standards of Part 77.13 (a) (1), (2) or (3)
- When requested by the FAA, any construction or alteration [of a structure or object] that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of subpart C of this Part [Part 77]
- Any construction or alteration of a structure or object located on a public use airport or heliport that meets the criteria of Part 77.13 (a) (5)

The Proposed Project would comply with applicable regulations of the FAA, and Form 7460-1 would be submitted pursuant to FAA Regulations, Part 77. Final locations, structures, and structure heights, including transmission and subtransmission lines, as well as construction related equipment that might impact air navigation (i.e., cranes), would be submitted to the FAA for review.

State

California Public Utilities Commission

Pursuant to Article XII of the Constitution of the State of California, the California Public Utilities Commission (CPUC) is charged with the regulation of investor-owned public utilities (which includes SCE). The CPUC's General Order (GO) Number 131-D, Section XIV B states that: "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's [CPUC's] jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters."

Local

The proposed 230 kV transmission line and Wildlife Substation are located in unincorporated Riverside County and/or the cities of Riverside, Jurupa Valley, and Norco. As such, the County and cities would not have jurisdiction over these Proposed Project components, and the proposed 230 kV transmission line and Wildlife Substation would therefore be exempt from local land use and zoning regulations and discretionary permitting. However, SCE would still be required to obtain all ministerial building and encroachment permits from local (Riverside County and the cities of Riverside, Jurupa Valley, and Norco) jurisdictions, and the CPUC will ensure that the Proposed Project complies with local regulations to the greatest degree feasible to minimize Proposed Project conflicts with local conditions, in accordance with GO Number 131-D.

Local land use plans have been evaluated to determine whether the Proposed Project would be consistent with locally adopted land use plans, goals, and policies. An inconsistency between a proposed project and an applicable plan is a legal determination, not a physical impact on the environment. There is no agreed objective standard by which to judge the *degree* of inconsistency or the *significance* of a project's inconsistency with the various policies and objectives enumerated in adopted plans. Inconsistency with a plan alone does not mandate a finding of a significant impact under CEQA. Inconsistencies may, however, may be a factor in determining the significance of an underlying physical impact.

In addition to General Plans, the State requires cities and counties to adopt local zoning ordinances (Government Code Section 65800 *et seq.*) to implement their adopted General Plan through development standards and regulations. The following discussion summarizes the local plans, policies, and ordinances that are applicable to the Proposed Project.

Riverside County General Plan

Riverside County has completed an integrated planning effort that resulted in a General Plan and 19 Area Plans. The General Plan and associated Area Plans direct the location and amount of different land uses in the unincorporated areas of the county through 2020, including agricultural, urban, and recreational uses. The Riverside County General Plan consists of seven elements: Land Use, Circulation, Multipurpose Open Space, Safety, Noise, Housing, and Air Quality. The most recent General Plan² and Area Plans were adopted in 2003.

² Note: The County of Riverside is commencing its first 5-year General Plan review cycle, since the County adopted the current plan in 2003. Primarily, the 2008 update will assess General Plan's progress and issues related to its implementation.

The Riverside County General Plan consists of two levels of policies that direct land use and development in the County: policies that apply countywide and those that are unique to a specific region. Countywide policies that are applicable to the entire unincorporated area are contained in the General Plan and reflected on the Riverside County General Plan Land Use Map. More focused policies that address specific regional or local issues are found in the individual area plans. The Proposed Project area is located within the Jurupa and Eastvale Area Plans.

The Land Use Element of the Riverside County General Plan designates the general distribution, location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public/quasi-public uses, within the County. The Land Use Element and General Plan Land Use Map are intended to help guide Riverside County to achieve an integrated and coordinated land use, open space, and transportation system. As indicated in the General Plan, the preferred pattern is to focus growth into strategically located centers or into existing developed areas in order to minimize development pressures on rural, agricultural, and open space areas. The Land Use Element acknowledges the importance of infrastructure and public facilities in supporting an increase in population but does not directly address regional infrastructure facilities.

The General Plan Land Use Map depicts the general pattern of the future land use in unincorporated Riverside County. The General Plan Land Use Map consists of five broad Foundation Component land uses: Agriculture, Rural, Rural Community, Open Space, and Community Development. Each of these is subdivided into more detailed land use designations at the area plan level. The uses allowed within each of these basic categories are detailed in the land use designations and are directed by policies contained within the Land Use Element.

Policies of the Riverside County General Plan applicable to the Proposed Project and the consistency with these policies are described below.

Countywide Policies

Land Use Compatibility Policy LU 6.2.

- Notwithstanding the Public Facilities designation, public facilities shall also be allowed in any other land use designation except for the Open Space-Conservation and Open Space-Habitat land use designations. For purposes of this policy, a public facility shall include all facilities operated by the federal government, the State of California, the County of Riverside, any special district governed by the County of Riverside or any city, all facilities operated by any combination of these agencies and all facilities operated by a private person for the benefit of any of these agencies.
 - **Open Space-Conservation Habitat (OS-CH) Designation.** The Open Space-Conservation Habitat land use designation applies to public and private lands conserved and managed in accordance with adopted MSHCPs. Ancillary structures or uses may be permitted for the purpose of preserving or enjoying open space. Actual building or structure size, siting, and design will be determined on a case-by-case basis.
 - **Multipurpose Open Space Element Policy OS 20.2.** Prevent unnecessary extension of public facilities, services, and utilities, for urban areas, into Open Space-Conservation designated areas.

Consistency: With the exception of where the proposed 230 kV transmission line is located in

the OS-CH general plan designation (Hidden Valley Wildlife Area), the proposed 230 kV transmission line would traverse lands that fall into the Community Development, Rural Community, and Open Space-Water designations. Consequently, the 230 kV transmission line in these areas would be consistent with Policy LU 6.2. As stated above, this Proposed Project component also traverses areas (9.7 acres) designated as OS-CH. The proposed 230 kV transmission line would not be consistent with the OS-CH designation. Avoidance of these OS-CH lands is not possible since they abut existing residential subdivisions to the south.

RPU and SCE will comply with all regulations and policies outlined in the MSHCP and as promulgated by the Western Riverside County Regional Conservation Authority (RCA). These include, but are not limited to:

- a. The payment of Local Development Mitigation Fees and other relevant fees as set forth in the MSHCP;
- b. 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;
- c. Compliance with the policies for the Protection of Narrow Endemic Plant Species set forth in Section 6.1.3 of the MSHCP;
- d. Compliance with survey requirements as set forth in Section 6.3.2 of the MSHCP;
- e. Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP; and
- f. Compliance with the BMPs and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP.

Through compliance with the RCA, along with going through the process with the RCA to ensure there will be no conflict with the provisions of the MSHCP, impacts to local, regional, or State habitat conservation plans will be less than significant.

Land Use Compatibility Policy LU 6.4. Retain and enhance the integrity of existing residential, employment, agricultural, and open space areas by protecting them from encroachment of land uses that would result in impacts from noise, noxious fumes, glare, shadowing, and traffic.

Consistency: The Proposed Project would not introduce substantial new sources of noise, fumes, glare, or traffic. The shadowing that could result would be minor and would not impact land uses. Refer to the Noise and Transportation and Traffic sections of the DEIR (3.2.11 and 3.2.15) for applicable impacts. The Proposed Project is consistent with Policy LU 6.4.

Land Use Compatibility Policy LU 16.1. Encourage retaining agriculturally designated lands where agricultural activity can be sustained at an operational scale, where it accommodates lifestyle choice, and in locations where impacts to and from potentially incompatible uses, such as residential uses, are minimized through incentives such as tax credits.

Land Use Compatibility Policy LU 16.2. Protect agricultural uses, including those with industrial characteristics (dairies, poultry, hog farms, etc.) by discouraging inappropriate land division in the immediate proximity and allowing only uses and intensities that are compatible with agricultural uses.

Land Use Compatibility Policy LU 16.4. Encourage conservation of productive agricultural lands. Preserve prime agricultural lands for high-value crop production.

Multipurpose Open Space Element Policy OS 7.5. Encourage the combination of Agriculture with other compatible open space uses in order to provide an economic advantage to Agriculture. Allow by right, in areas designated as Agriculture, activities related to the production of food and fiber, and support uses incidental and secondary to on-site agricultural operation.

Consistency: The Proposed Project would not preclude the retention of agriculturally designated lands at an operational scale or introduce an incompatible use. As such the Proposed Project is consistent with policies LU 16.2, LU 16.4, and OS 7.5. Impacts to prime agricultural lands are discussed in Section 3.2.2.

Area Plans

Proposed Project components located within unincorporated Riverside County associated with the proposed 230 kV transmission line fall under the Jurupa and Eastvale Area Plans.

Jurupa Area Plan

Policies

JURAP 7.13: Discourage utility lines within the river corridor. If approved, lines shall be placed underground where feasible and shall be located in a manner to harmonize with the natural environment and amenity of the river.

Consistency: The proposed 230 kV transmission line crosses the Santa Ana River corridor and cannot avoid it. In those limited areas where impacts are potentially significant, inmitigable, and unavoidable, some impacts could be reduced to less than significant if the Project's lines were undergrounded. However, as discussed in detail in Chapter 6 (Alternatives), undergrounding even limited sections of the Project as a means of potential mitigation is infeasible. While undergrounding may reduce some of the Project's potentially significant land use impacts, the overall environmental impacts caused by undergrounding would be greater and, as such, it is not considered a feasible mitigation measure for the Proposed Project. Specifically, undergrounding requires substantially more excavation than overhead structures. This level of ground disturbance would require several times more heavy equipment than overhead construction. Complete ground disturbance along the line (or sections) would make it difficult or impossible to avoid sensitive areas, such as wetlands and stream crossings—particularly in the area where the Project crosses the Santa Ana River. In addition, vegetation restoration options are much more limited for undergrounding as opposed to the currently proposed Project. This is because vegetation growing over an underground line would need to support heat dissipation and prevent root intrusion into the lines. Further, during future repairs of an underground line, entire sections between vaults, approximately 2,000 feet apart, may require re-excavation. Undergrounded portions within the Santa Ana River corridor would be prone to washouts during a flood event, requiring re-installation. These considerations equate to increased environmental impacts to air quality, agricultural resources, biological resources, cultural resources, and geologic and water resources, as impacts would be inflicted again and again during any future repairs or wash-out incidents. Further, outages would be prolonged on the underground line, due to poor accessibility and time required in identifying the failure location, excavating the underground line, and correcting any outage. Also, economic considerations associated with undergrounding show that undergrounding is infeasible as a mitigation measure, even for more limited sections of the

Project, as discussed in Chapter 6. In all, then, undergrounding even a limited portion of the Project as a means of potential mitigation is both infeasible and environmentally more damaging than the currently proposed Project's overhead lines.

Therefore, the Project is consistent with Policy JURAP 7.13, given that there is no feasible alternative alignment that could avoid the river corridor and given that undergrounding is infeasible.

Eastvale Area Plan

~~The incorporated City of Eastvale, effective October 1, 2010, defines I-15 as its eastern boundary. The City of Eastvale is outside the Proposed Project area.~~

Policies

~~None identified.~~

EAP: 1.13 Discourage utility lines within the river corridor. If approved, lines shall be placed underground where feasible and shall be located in a manner to harmonize with the natural environment and amenity of the river.

Consistency: See consistency determination for *Jurupa Area Plan* Policy JURAP 7.13, above.

Specific Plans

Specific Plans are highly customized policy or regulatory tools that provide a bridge between the General Plan and individual development projects in a more area-specific manner than is possible with community-wide zoning ordinances. The specific plan is a tool that provides land use and development standards that are tailored to respond to special conditions and aspirations unique to the area being proposed for development and conservation. These tools are a means of addressing detailed concerns that conventional zoning cannot do. Specific Plans may be implemented through a variety of approval steps (e.g., zoning, site plans, parcel and tentative tract maps).

The following Riverside County adopted specific plans were identified within the Proposed Project study corridors:

- Mission De Anza 123 (residential, commercial, and industrial)
- Sky Country 125 (primarily residential)
- Interstate 15 Corridor 266 (primarily residential and commercial uses)

Note: With the incorporation of the City of Jurupa Valley, these adopted specific plans are currently located in that city.

A proposed Specific Plan (Specific Plan No. 376 - Thoroughbred Farm IDI) is also located in the Proposed Project study corridor (Mira Loma area). It proposes to establish a 108.2-acre Specific Plan of land uses including 42.6 acres of light industrial uses, 36.5 acres of business park uses, 7.6 acres of commercial/tourist, 11.5 acres of commercial/retail uses, and 10.0 acres of potential roads. County-specific plan policies were reviewed, and no policies applicable to the Proposed Project were not identified. Note that with the incorporation of the City of Jurupa Valley, the adopted specific plans indicated above are within the boundaries of the new city.

Riverside County Airport Land Use Compatibility Plan

Although the City of Riverside contains the Riverside Municipal Airport within its boundaries, the County of Riverside's Airport Land Use Commission (ALUC) has policies that pertain to development within the vicinity of an airport. Such policies and procedures are found within the Riverside County Airport Land Use Compatibility Plan ~~(RCALUC)~~. The ALUC is responsible for reviewing major land use projects subject to city, county, school district, or special purpose district permitting processes within "Airport Influence Areas" and determining whether these projects are consistent with the Riverside County Airport Land Use Compatibility Plan adopted by the ~~Commission~~ ALUC for the airport's environs. The Airport Influence Area is an area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. An Airport Influence Area is defined by the ALUC as the outer boundary created by overlaying the ~~Federal Aviation Regulation (FAR)~~ FAR Part 77 surfaces, the 60 dB CNEL noise contour and the airport safety zones. The Riverside Municipal Airport is located within ~~a RCALUC~~ an ALUC-designated Airport Influence Area, which includes properties within an approximate two-mile radius of the airport.

According to the ~~RCALUC~~ Map (Map RI-1), the proposed 230 kV transmission line traverses land in Compatibility Zones B1 (Inner Approach/Departure zone), C (Extended Approach/Departure zone), and D (Primary Traffic Patterns and Runway Buffer area). The proposed 69 kV subtransmission lines would traverse land in the following Compatibility Zones: Wilderness Substation to Mountain View Substation: Compatibility Zones C and D; Wilderness/Wildlife Substation to Jurupa Avenue: Compatibility Zones B1, C, ~~D~~, and ~~ED~~; and RERC to Harvey Lynn Substation and Freeman Substation: Compatibility Zones ~~A, B1~~, B2 (Adjacent to Runway), C, D, and E.

The following air space protection policies of the ~~RCALUC~~ would be relevant to the Proposed Project:

Countywide Policies

Policy 1.5.3. Major Land Use Actions: The scope or character of certain *major land use actions*, as listed below, is such that their compatibility with airport activity is a potential concern. Even though these actions may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better assessment of compliance with the compatibility criteria set forth herein, ALUC review of these actions is warranted.

(a) Actions affecting land uses within any compatibility zone.

(9) Proposals for new development (including buildings, antennas, and other structures) having a height of more than:

- 35 feet within *Compatibility Zone B1, B2, or a Height Review Overlay Zone*;
- 70 feet within *Compatibility Zone C*; or
- 150 feet within *Compatibility Zone D or E*.

(11) Any project having the potential to create electrical or visual hazards to aircraft in flight,

including:

- Electrical interference with radio communications or navigational signals;
- Lighting which could be mistaken for airport lighting;
- Glare in the eyes of pilots of aircraft using the airport; and
- Impaired visibility near the airport.

Policy 4.3.1.Policy Objective: Tall structures, trees, and other objects, particularly when located near airports or on high terrain, may constitute hazards to aircraft in flight. Federal regulations establish the criteria for evaluating potential obstructions. These regulations also require that the Federal Aviation Administration be notified of proposals for creation of certain such objects. The FAA conducts “aeronautical studies” of these objects and determines whether they would be hazards, but it does not have the authority to prevent their creation. The purpose of ALUC airspace protection policies, together with regulations established by local land use jurisdictions and the state government, is to ensure that hazardous obstructions to the navigable airspace do not occur.

Policy 4.3.3.ALUC Review of Height of Proposed Objects: Based upon FAA criteria, proposed objects that would exceed the heights indicated below for the respective compatibility zones potentially represent airspace obstructions issues. Development proposals that include any such objects shall be reviewed by the ALUC. Objects of lesser height normally would not have a potential for being airspace obstructions and therefore do not require ALUC review with respect to airspace protection criteria (noise, safety, and overflight concerns may still be present). Caution should be exercised, however, with regard to any object more than 50 feet high proposed to be located on a site that is substantially higher than surrounding terrain.

(a) Within *Compatibility Zone A*, the height of any proposed development, including vegetation, requires review.

(b) Within *Compatibility Zone B1*, ALUC review is required for any proposed object taller than 35 feet unless the airport controls an easement on the land on which the object is to be located and grants a waiver to height restrictions.

(c) Within *Compatibility Zone B2*, ALUC review is required for any proposed object taller than 35 feet.

(d) Within *Compatibility Zones C and D*, ALUC review is required for any proposed object taller than 70 feet.

(e) Within *Compatibility Zone E*, ALUC review is required for any proposed object taller than 100 feet.

(f) Within the *Height Review Overlay Zone*, ALUC review is required for any proposed object taller than 35 feet above the ground. The approximate extent of the *Height Review Overlay Zone* is indicated on the respective *Compatibility Map* included for each airport in Chapter 3.

Policy 4.3.4.Height Restriction Criteria: The height of objects within the influence area of each

airport shall be reviewed, and restricted if necessary, according to the following criteria. The locations of these zones are depicted on the respective *Compatibility Map* for each airport.

(a) Within *Compatibility Zone A*, the height of all objects shall be limited in accordance with applicable Federal Aviation Administration criteria including FAR Part 77, [Terminal Instrument Procedures] TERPS, and/or airport design standards.

(b) Within *Compatibility Zones B1, B2, or Height Review Overlay Zone*:

(1) Objects up to 35 feet tall are acceptable and do not require ALUC review for the purposes of height factors.

(2) ALUC review is required for any proposed object taller than 35 feet.

(3) Federal Aviation Administration review may be necessary for proposed objects adjacent to the runway edges and the FAA may require marking and lighting of certain objects (the affected areas are generally on airport property).

(c) Within *Compatibility Zones C and D*, generally, there is no concern with regard to any object up to 70 feet tall unless it is located on high ground or it is a solitary object (e.g., an antenna) more than 35 feet taller than other nearby objects.

(d) Within *Compatibility Zone E*, generally, there is no concern with regard to any object up to 100 feet tall unless it is located on high ground or it is a solitary object (e.g., an antenna) more than 35 feet above the ground.

The Proposed Project (230 kV transmission and 69 kV subtransmission line components) would occur within the Airport Influence Area for the Riverside Municipal Airport. Table 3.2.9-2 summarizes the Riverside Municipal Airport Compatibility Zones crossed by the 230 kV transmission line, height ranges for structures in these zones, and the structure height for proposed development that would be subject to RCALUC review within the zones. The proposed 230 kV transmission line would be located within Compatibility Zones B1, C, and D of the Riverside County Airport Land Use Compatibility Plan. Transmission structures that would be installed include tubular steel poles and lattice steel towers with a height range of 90 to 180 feet. RPU's proposed 69 kV subtransmission lines (height range between 65 and 90 feet) would be located within the following Compatibility Zones: Wilderness Substation to Mountain View Substation (Compatibility Zones C and D); Wilderness/Wildlife Substation to Jurupa Avenue (Compatibility Zones ~~B1~~, C, ~~D~~, and ~~ED~~); and RERC to Harvey Lynn Substation and Freeman Substation (Compatibility Zones ~~A~~, ~~B1~~, B2, C, D, and E). Per Policy 1.5.3, actions within these zones that may warrant review by the RCALUC include proposals for new development (including buildings, antennas, and other structures) having a height of more than 35 feet (Zones B1 and B2), 70 feet (Zone C), and 150 feet (Zones D and E). Table 3.2.9-2 summarizes the Riverside Municipal Airport Compatibility Zones crossed by the 230 kV transmission line and 69 kV subtransmission lines, height ranges for structures in these zones, and the structure height for proposed development that may be subject to RCALUC review within the zones.

TABLE 3.2.9-2. RIVERSIDE MUNICIPAL AIRPORT COMPATIBILITY ZONES CROSSED BY THE PROPOSED PROJECT AND VAN BUREN OFFSET ALTERNATIVE

RTRP COMPONENT	RIVERSIDE MUNICIPAL AIRPORT COMPATIBILITY ZONES					
	Riverside Municipal Airport Compatibility Zone Name					
	ZONE A	ZONE B1	ZONE B2	ZONE C	ZONE D	ZONE E
	Location					
	Runway Protection Zone within Building Restriction Line	Inner Approach / Departure Zone	Adjacent to Runway	Extended Approach / Departure Zone	Primary Traffic Patterns and Runway Buffer Area	Other Airport Environs
	Structure Height for Proposed Development Subject to ALUC Review within Designated Airport Compatibility Zones					
	any proposed development	>35 feet	>35 feet	>70 feet	>150 feet	>150 feet
230kV Transmission Line Steel Lattice Towers and Tubular Steel Poles (structure height range: 90-175 feet)						
Proposed Project (I-15 Route)		x		x	x	
69kV Subtransmission Line Wood Poles (structure height range: 65-90 feet)						
Wilderness Substation to Mountain View Substation				x	x	
Wilderness/Wildlife Substation to Jurupa Avenue		<u>x</u>		x	x	*
RERC to Harvey Lynn Substation and Freeman Substation	*	*	x	x	x	x

Consistency: SCE will submit a Notice of Proposed Construction or Alteration (Form 7460-1) of the 230 kV transmission line Proposed Project component for review to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible. Submittal of the notice would occur when final design of the 230 kV transmission line is completed and the precise location of transmission structures within the proposed ROW is known. ~~Applicable 69 kV subtransmission line components requiring review will be submitted by RPU to the FAA and ALUC. Some of these components as currently designed, however, would likely exceed the allowable heights in Zones A, B1, B2, and C. As a result, these structures would be an incompatible land use if the heights of the structures were to pose a hazard to air navigation near the airport. The Proposed Project would not be consistent with the adopted RCALUC. This inconsistency would, therefore, result in a significant impact.~~

Applicable 69 kV subtransmission line components requiring review were submitted by RPU to the FAA and ALUC. Some of these components as previously designed would have likely exceed the allowable heights in Zones A, B1, B2, and C. As a result, these structures would have been an incompatible land use if the heights of the structures were to pose a hazard to air navigation near the airport, and the Proposed Project would not have been consistent with the adopted Riverside Airport Land Use Compatibility Plan. As a result, RPU modified the proposed 69 kV subtransmission line route so that it would travel underground in the vicinity of the airport land use zones along Doolittle Avenue, between Jurupa Avenue and Morris Street. Also, as a

result of review by the Federal Aviation Administration, new poles along Wilderness Avenue, north of Jurupa Avenue, would be equipped with obstruction lighting.

On April 12, 2012, the ALUC conducted a public hearing and provided a determination that the proposal to establish 69 kV subtransmission lines within the Riverside Municipal Airport Influence Area, as revised to place all portions within Airport Compatibility Zone A underground, is consistent with the 2005 Riverside Municipal Airport Land Use Compatibility Plan (ALUC 2012).

The Flabob Airport is not located within a ~~RCALUC~~ an ALUC-designated Airport Influence Area. Aircraft, however, have utilized the Santa Ana River at low altitudes to access the Flabob Airport (Leo Doiron, Flabob Airport Manager, March 2006).

County of Riverside Zoning Ordinance

The County of Riverside Land Use Zoning Ordinance (Ord. No. 348) contains the regulatory framework that specifies allowable uses for real property and development intensities; the technical standards such as site layout, building setbacks, heights, lot coverage, parking, etc.; aesthetics related to physical appearance, landscaping, and lighting; a program that implements policies of the General Plan; and the procedural standards for amending or establishing new zoning regulations. According to Riverside County Zoning Ordinance (ORD.348), Section 18.29. Public Use Permits:

“Notwithstanding any other provisions of this ordinance, public utilities may be permitted in any zone classification provided that a public use permit is granted pursuant to the provisions of this section. A public hearing shall be held on the application for a public use permit in accordance with the provisions of Section 18.26 of this ordinance. A public use permit shall not be granted unless the applicant demonstrates that the proposed use will not be detrimental to the health, safety or general welfare of the community. Any permit that is granted shall be subject to such conditions as shall be necessary to protect the health, safety or general welfare of the community.”

Ordinance 348 was also recently amended (Ordinance No. 348.4690). New language was added to the list of uses permitted under a public use permit:

“Facilities for the storage or transmission of electrical energy where the County is not preempted by law from exercising jurisdiction. This subsection shall take precedence over and supercede any conflicting provision in any zone classification. Facilities for the storage or transmission of electrical energy shall not be subject to the development standards of the zone classification in which they are located.”

While SCE, in accordance with General Order 131-D, would obtain input from Riverside County regarding land use matters related to siting (i.e., the exact location of proposed facilities), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a public use permit from Riverside County prior to Proposed Project approval.

City of Riverside General Plan 2025

The City of Riverside General Plan 2025 is the core policy and land use planning document for the City, and provides basic guidance to community decision-makers within the City. General Plan 2025 contains a statement of the community's vision and provides a roadmap or blueprint on how to achieve that vision. The General Plan 2025 was adopted in November 2007.

Pursuant to California statutes, the General Plan 2025 is divided into twelve elements, seven of which are mandatory, including Land Use and Urban Design; Circulation and Community Mobility; Housing; Arts and Culture; Education; Public Safety; Noise; Open Space and Conservation; Air Quality; Public Facilities and Infrastructure; Parks and Recreation; and Historic Preservation.

The Land Use Element of the General Plan 2025 also designates the various locations in which certain types of development should be located. The Land Use Element is designed to plan that sufficient land is available for commercial, industrial, residential, and public uses to meet the needs of the growing community; enhance community character; preserve important natural resources; and ensure provision of adequate public services. Applicable policies of the City of Riverside General Plan 2025 and the consistency of the Proposed Project with these policies are described below.

Public Facilities and Infrastructure Element

Objective PF-6: Provide affordable, reliable and, to the extent practical, environmentally sensitive energy resources to residents and businesses.

Policy PF-6.2: Ensure that adequate back-up facilities are available to meet critical electric power needs in the event of shortages or temporary outages.

Consistency: The proposed 69 kV subtransmission lines and Wilderness Substation are consistent with the objectives and policies specified in the Public Facilities and Infrastructure Element of the City of Riverside General Plan 2025 (see above).

Specific Plans

City of Riverside specific plans within the 69 kV subtransmission line study corridors are identified in Table 3.2.9-3. A summary of each is also provided below.

TABLE 3.2.9-3. CITY OF RIVERSIDE SPECIFIC PLANS WITHIN THE 69 kV STUDY CORRIDORS

Specific Plan	Applicable Neighborhood(s)	Date of Specific Plan Adoption	Adoption Resolution Number
La Sierra University	La Sierra	March 1997	19057
Rancho La Sierra	La Sierra Acres	January 1996	18846
Magnolia Avenue	---	November 2009	21931

La Sierra University Specific Plan: Encompassing 531 acres in the western portion of the City of Riverside, the overall plan concept for the La Sierra University Specific Plan envisions a “mixed-use” community. This community would accommodate the expansion of the La Sierra campus and development of the University's surplus lands, located east and south of the existing campus, to help support the University's endowment.

Rancho La Sierra Specific Plan: The intent of the Rancho La Sierra Specific Plan is to accommodate diverse land uses while maintaining the property's open space character and protecting the Santa Ana River corridor. The Plan provides for recreational and open space uses, community facilities, single family residential development, and agriculture.

Magnolia Avenue Specific Plan (MASP): Magnolia Avenue is one of the primary east/west streets in the City of Riverside. It extends from Downtown at Market Street to the east, to the western City boundary at Buchanan Street to the west. It continues into the City of Corona and ends at Ontario Avenue. This plan is focusing on the portion of Magnolia Avenue from the western City limits to Ramona Drive at the southern edge of Downtown. The Market Street portion of the corridor is not included in this Plan because it is within the boundaries of the Downtown Specific Plan and is addressed therein. The MASP promotes revitalization to Magnolia Avenue between Ramona Drive and Buchanan Street. Implementation of the MASP promotes enhancement and maintenance of existing land uses along Magnolia Avenue.

City specific plan policies applicable to the Proposed Project were not identified.

Neighborhood Plans

Neighborhood Plans were not identified within the proposed 69 kV subtransmission line study corridors.

City of Riverside Zoning Code

The City of Riverside Zoning Code is Title 19 of the City's Municipal Code. The Zoning Code establishes the basic regulations under which land is developed and provides guidance for permitted uses and development standards. Similar to the General Plan 2025, the Zoning Code identifies specific land use categories for properties within the City. Among other things, these regulations define allowable uses, setback requirements, and development standards. Zoning designations exist for various densities of residential development, commercial areas, specific plan developments, and open space.

While SCE would obtain input from the City of Riverside regarding land use matters related to siting (proposed 230 kV transmission line and Wildlife Substation), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from the City of Riverside prior to Proposed Project approval in accordance with General Order 131-D. Since the proposed 69 kV subtransmission lines and Wilderness Substation are exempt from Title 19 of the City of Riverside's Municipal Code, RPU would not be required to obtain a conditional use permit.

City of Norco General Plan

The City of Norco General Plan was adopted in 1969. The Land Use Element, adopted in 2001, serves as the regulatory document that sets forth the general distribution and intensity of land uses throughout the city and its Sphere of Influence (SOI). All land uses must be consistent with the goals, objectives, and policies of the Land Use Element. The Land Use Element does not contain any goals or policies regarding the siting of electrical transmission lines.

Consistency: Per General Order No. 131-D, SCE would obtain input from the City of Norco

regarding land use matters related to the exact siting of the proposed 230 kV transmission line prior to Proposed Project construction.

City of Norco Comprehensive Zoning Ordinance

The City of Norco Comprehensive Zoning Ordinance is Title 18 of the city's Municipal Code. The Ordinance regulates the following aspects of land development: (1) the use of land, buildings, or other structures for residences, commerce, industry and other purposes; (2) the design, location, height and size of buildings or structures, yards, courts and other open spaces, the intensity of development, and the amount of building coverage permitted in each zone, among other things; (3) the division of the City of Norco into zones of such shape, size, and number best suited to carry out these purposes, and to provide for their enforcement. According to the City of Norco Zoning Map (City Council Resolution No. 2007-23/Date May 2, 2007), a portion of the Proposed Project is located in the A-E Zone Agricultural Zone.

While SCE would obtain input from the City of Norco regarding land use matters related to siting (proposed 230 kV transmission line), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from the City of Norco prior to Proposed Project approval in accordance with General Order 131-D.

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) involves the assembly and management of a 500,000-acre Conservation Area for the conservation of natural habitats and their constituent wildlife populations. The approval of the MSHCP and the Implementing Agreement (IA) by the U.S. Fish and Wildlife Service and the California Department of Fish and Game allows signatories of the IA to issue "Take" authorizations for the 146 species covered by the MSHCP (termed "covered species"), including State and federally listed species as well as other identified sensitive species. The "Take" authorization includes impacts to the habitats of the covered species. The signatories considered "permittees" include Riverside County, 14 cities in western Riverside County, Caltrans, and the California Department of Parks and Recreation.

The MSHCP allows the permittees to "take" (permit the loss of) the plant and animal species covered by the MSHCP through their local land use planning and development review processes. The permittees have the authority to grant Third Party Authorization to private developers, provided the terms of the MSHCP are satisfied. A project that complies with the MSHCP meets federal and State endangered species requirements and meets CEQA criteria for less than significant impacts to the covered species and their habitats.

Impact Assessment

Significance Threshold Criteria

The significance criteria for this analysis were developed from criteria presented in Appendix G of the CEQA Guidelines and previous environmental impact assessments. The Proposed Project would result in a significant impact to land use if it would:

- a) Physically divide an established community;
- b) 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; or

- c) Directly or indirectly disrupt an established or recently approved land use; or
- d) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Environmental Impacts

Construction-related activities that could affect adjacent land uses are discussed in Sections 3.2.1, *Aesthetics*; 3.2.3, *Air Quality*; 3.2.11, *Noise*; and 3.2.15, *Transportation and Traffic*. Construction-related impacts would be relatively short-term in nature (approximately 14-18 months) and would not continue after the Proposed Project begins full operation.

As discussed previously, the Proposed Project would include installation, operation, and maintenance of new electrical equipment at the existing RERC, Mountain View, Harvey Lynn, and Freeman Substations. The proposed upgrades at these existing substations would consist of electrical system and safety upgrades. All necessary upgrades to the existing 69 kV substations would be conducted within the fenced area of the facilities. The associated construction, operation, and maintenance activities would constitute a continuation of current land use conditions at these sites. Proposed upgrades to these existing substations would not result in significant land use impacts; therefore, potential impacts related to the substations' upgrades will not be discussed further in this section.

a) Physically divide an established community.

Less than Significant Impact. The Proposed Project (230 kV transmission line and 69 kV subtransmission lines) are primarily located along, or adjacent to, existing roadways in urban areas, or traverse open space. As such, they would not divide existing communities because they would not constitute a barrier that could limit access.

These proposed routes would traverse or adjoin land used predominantly for residential, commercial, and industrial uses, public facilities, parks and recreation and open space. The proposed routes would not establish a permanent barrier or obstacle between these uses such that a perceived physical division would occur. While proposed transmission structures and lines would be present, movement between and around these facilities would be possible, and they would not block or impede travel or connections within a community.

The proposed Wildlife and Wilderness substation sites would not physically divide an existing community. No new physical barriers would be created by the proposed substations and no existing roadways or pathways would be blocked. The proposed substation sites are also near the RERC and are compatible with other industrial uses in the area.

The fiber optic cable would be installed on existing overhead distribution poles, on new 230 kV transmission structures, or in new underground conduit. New underground fiber cable ROWs along the existing distribution pole line would be required for installation of the underground fiber optic cable.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with

jurisdiction ~~of over~~ the project (including, but not limited to the general plan, specific plan, local coastal program, or local zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Less than Significant Impact. The Proposed Project's consistency with applicable plans and policies, as well as zoning ordinances, ~~are~~ discussed above in the Regulatory Setting within this Section 3.2.9. As discussed above, with the exception of Riverside County General Plan Policy LU 6.2, and the ~~RCALUC~~ Riverside Airport Land Use Compatibility Plan, the Proposed Project would be consistent with applicable plans, policies, and zoning ordinances. With regard to consistency with Policy LU 6.2, however, mitigation measures BIO-01 and BIO-03, through compliance with the Western Riverside County MSHCP, would keep impacts to less than significant levels as discussed under threshold (d) below.

~~With regard to consistency with the RCALUC, review of the Proposed Project by the ALUC has not been completed. As such, a consistency determination cannot be made. The Proposed Project's inconsistency with the RCALUC would be a significant impact.~~

Based upon ALUC comments on the DEIR, a portion of Segment A (RERC to Harvey Lynn Substation and Freeman Substation) will be placed underground. The location of this activity would be along Doolittle Avenue between Jurupa Avenue and Morris Street. On April 12, 2012, the ALUC conducted a public hearing and provided a determination that the proposal to establish 69 kV subtransmission lines within the Riverside Municipal Airport Influence Area, as revised to place all portions within Airport Compatibility Zone A underground, is consistent with the 2005 Riverside Municipal Airport Land Use Compatibility Plan (ALUC 2012).

c) Directly or indirectly disrupt an established or recently approved land use.

Less than Significant Impact. The proposed 230 kV transmission line would require new ROW. Direct impacts on four structures (agricultural ancillary structures) could result from incompatibility with or removal from the ROW. The location of the ROW within existing and planned developments could result in direct impacts where operation would preclude or impair future development activities (e.g., development-level land uses [e.g., specific plans], as well as approved tract and parcel maps and plot plans). ~~Preclusion would also occur as a result of the proposed 230 kV transmission line traversing the Vernola Marketplace community shopping center parking lot. The placement of the 230 kV transmission line in the parking lot would result in the reduction of approximately six designated parking spaces and require approval of a Substantial Conformance from Riverside County. A Substantial Conformance is a request for a non-substantial modification of an approved permit that does not change the original approval for the effect of the approval on surrounding property.~~

~~However, while SCE, in accordance with General Order 131-D, would obtain input from Riverside County regarding land use matters related to siting (i.e., the exact location of proposed facilities), approval of a Substantial Conformance request is a discretionary action, and SCE would not be required to obtain approval of this action from Riverside County prior to approval of the Proposed Project. Undergrounding of the transmission line could potentially mitigate the reduction of parking spaces associated with the Vernola Marketplace. In those limited areas where impacts are potentially significant, inmitigable, and unavoidable, some impacts could be reduced to less than significant if the Project's lines were undergrounded. However, as discussed in detail in Chapter 6 (Alternatives), undergrounding even limited sections of the Project as a~~

~~means of potential mitigation is infeasible. While undergrounding may reduce some of the Project's potentially significant land use impacts, the overall environmental impacts caused by undergrounding would be greater and, as such, it is not considered a feasible mitigation measure for the Proposed Project. Specifically, undergrounding requires substantially more excavation than overhead structures. This level of ground disturbance would require several times more heavy equipment than overhead construction. Complete ground disturbance along the line (or sections) would make it difficult or impossible to avoid sensitive areas, such as wetlands and stream crossings particularly in the area where the Project crosses the Santa Ana River. In addition, vegetation restoration options are much more limited for undergrounding as opposed to the currently proposed Project. This is because vegetation growing over an underground line would need to support heat dissipation and prevent root intrusion into the lines. Further, during future repairs of an underground line, entire sections between vaults, approximately 2,000 feet apart, may require re-excavation. Undergrounded portions within the Santa Ana River corridor would be prone to washouts during a flood event, requiring re-installation. These considerations equate to increased environmental impacts to air quality, agricultural resources, biological resources, cultural resources, and geologic and water resources, as impacts would be inflicted again and again during any future repairs or wash-out incidents. Further, outages would be prolonged on the underground line, due to poor accessibility and time required in identifying the failure location, excavating the underground line, and correcting any outage. Also, economic considerations associated with undergrounding show that undergrounding is infeasible as a mitigation measure, even for more limited sections of the Project, as discussed in Chapter 6. In all, then, undergrounding even a limited portion of the Project as a means of potential mitigation is both infeasible and environmentally more damaging than the currently proposed Project's overhead lines.~~

Existing and planned land uses traversed by the proposed 230 kV transmission line include commercial/industrial properties, agricultural ancillary structures, and approved undeveloped or planned residential developments (refer to the Land Use Technical Report in Appendix B of this DEIR).

SCE would obtain input from Riverside County and the cities of Norco and Jurupa Valley regarding land use matters related to the exact siting of the proposed 230 kV transmission line prior to Proposed Project construction in accordance with General Order 131-D.

The proposed 69 kV subtransmission lines are primarily located within, or adjacent to, existing public road ROWs ways in urban areas of the City of Riverside.

The proposed 69 kV subtransmission lines are primarily located within, or adjacent to, existing public road ROWs ways in urban areas of the City of Riverside.

The proposed Wildlife and Wilderness Substation sites are located on land owned by the City of Riverside in a light industrial/manufacturing area. The sites are also designated as "Business and Manufacturing Park" according to the City of Riverside Zoning Code. Since a use permit is a discretionary land use instrument, construction of the Wildlife Substation would not require a conditional use permit from the City of Riverside prior to Proposed Project approval in accordance with General Order 131-D. The Wilderness Substation would be exempt from Title 19 of the City of Riverside's Municipal Code. As such, RPU would not be required to obtain a conditional use permit.

The fiber optic cable would be installed on existing overhead distribution poles, on new 230 kV transmission structures, or in new underground conduit. New underground fiber cable ROWs along the existing distribution pole line would be required for installation of the underground fiber optic cable.

d) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Less than Significant Impact with Mitigation Incorporation. Portions of the Proposed Project (230 kV transmission line component) would be located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) boundary. The overall goal of the MSHCP is to maintain biological diversity within a rapidly urbanizing region. RPU's and SCE's compliance with the Western Riverside County MSHCP would mitigate any impacts to natural vegetation communities covered by the MSHCP to less than significant levels. Refer to Section 3.2.4, Biological Resources. Mitigation Measure BIO-01 requires RPU and SCE to comply with the Western Riverside County MSHCP.

Significant Unavoidable Impacts

~~With the application of MMs, the Proposed Project's inconsistency with the Riverside County Airport Land Use Compatibility Plan Project would be a not result in significant impact unavoidable impacts.~~

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3.2.10 MINERAL RESOURCES

Methodology for Resource Inventory and Other Data Collection

The Riverside County General Plan (2003) and the City of Riverside General Plan 2025 (2007) were reviewed to determine the location of mineral resources and the policies of each jurisdiction as they relate to mineral extraction activities.

Environmental Setting

The Proposed Project area includes sections of the City of Riverside and Riverside County. The State Mining and Geology Board established Mineral Resources Zones (MRZ) to designate lands in the state that contain mineral deposits. The City of Riverside General Plan 2025 defines the four MRZ designations:

- MRZ-1: adequate information indicates that no significant mineral deposits are present or likely to be present
- MRZ-2: adequate information indicates that significant mineral deposits are present or there is a high likelihood for their presence and development should be controlled
- MRZ-3: the significance of mineral deposits cannot be determined from the available data
- MRZ-4: there is insufficient data to assign any other MRZ designation

According to the City of Riverside General Plan 2025, the portion of the Proposed Project area in the City is within MRZ-4. According to the Mineral Resources Map in the 2003 Riverside County General Plan, the portion of the Proposed Project area in the county is within MRZ-3.

Regulatory Setting

The Riverside County General Plan has land use policies for the purpose of reducing or minimizing the conflicts between urban growth and mineral resources and their future extraction potential.

Applicable policies of the Riverside County General Plan are described below.

Land Use Compatibility Policy LU 21.2. Protect lands designated as Open Space-Mineral Resource from encroachment of incompatible land uses through buffer zones or visual screening (AI 3).

Land Use Compatibility Policy LU 21.3. Protect road access to mining activities and prevent or mitigate traffic conflicts with surrounding properties.

Proposed Project Consistency with LU 21.2 and LU 21.3: The Proposed Project would not traverse land designated as Open Space-Mineral Resource. The Open Space-Mineral Resource designation is based on the federal Surface Mining Control and Reclamation Act. Areas held in reserve for future mining also fall under this designation. Land designated as Open Space-Mineral Resources are subject to policies LU 21.2 and LU 21.3, which protect lands from encroachment of incompatible land uses as well as road access to mining activities.

Significance Threshold Criteria

The following significance criteria are based on state CEQA guidelines. The CEQA Environmental Checklist Form has the following criteria as it relates to mineral resources.

Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Environmental Impacts

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project and alternatives would result in significant impacts to mineral resources.

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. Given that the Proposed Project area is located within MRZs where the significance of mineral deposits cannot be determined from the available data (MRZ-3) or there is insufficient data to assign any other MRZ designation (MRZ-4), impacts to locally important and known mineral resources would not occur. No portion of the Proposed Project alignment is designated by the City of Riverside or Riverside County as a locally important mineral resource and existing mining operations are not present. For this reason, no impact associated with the loss of locally important mineral resources would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. A review of the general plans for the City of Riverside and Riverside County did not indicate any locally important mineral resource recovery sites that would be encroached upon by the Proposed Project.

Significant Unavoidable Impacts

The Proposed Project will not result in any significant unavoidable impacts to mineral resources.

References

City of Riverside. 2007. Section 5.10-Mineral Resources, General Plan 2025.

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3.2.11 NOISE

This section describes the noise impacts associated with the construction and operation of the Proposed Project. It outlines the methodology used to conduct the analysis, describes the existing environment related to power facility noise that occurs in the study area, and identifies the regulations and standards that could apply to these topics.

Environmental Setting

Methodology for Resource Inventory and Data Collection

Audible Noise

Sound level impacts for noise sensitive areas in the Proposed Project area are based on an A-weighting of sound intensities that best reflects the human ear's acoustical sensitivity across the sound spectrum. These sound intensity levels correlate well with human perceptions of the annoying aspects of noise. Noise environments and consequences of human activities are usually well-represented by an equivalent A-weighted sound level over a given time period (L_{eq}) or by the average day-night noise levels (L_{dn}). Equivalent Energy Level (L_{eq}) is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, typically 1, 8 or 24 hours. A-weighted Sound Pressure Level (dB(A)) is the sound pressure level, in decibels, as measured on a sound level meter using the A-weighting filter network. The A-weighting filter deemphasizes the very low and very high frequency components of the sound, placing greater emphasis on those frequencies within the sensitivity range of the human ear. Day-Night Noise Level (L_{dn}) is the average equivalent A-weighted sound level during a 24-hour day obtained by adding ten decibels to the hourly noise levels measured during the night (from 10 p.m. to 7 a.m.). In this way, L_{dn} takes into account the lower tolerance of people for noise during nighttime periods. L_{50} is another metric used, representing a sound level (in dB(A)) exceeded 50% of the time.

Radio Noise

Radio Interference (RI) refers to interference primarily in the 535-1605 kilohertz (kHz) frequency range (this includes AM band operational frequencies and is in the range of the lowest end of amateur [ham] operational frequencies), and Television Interference (TVI) refers to interference in the 54-88 megahertz (MHz) range. Both RI and TVI are components of what is referred to as Radio Noise (RN). RN is measured in decibels (dB) and is referenced to a signal input of one microvolt tuned to a certain measurement frequency (dB per microvolt/meter or $\text{dB}\mu\text{v}/\text{m}$). A decibel in this case is a measure of weak electrical energy, not sound energy, propagated through air.

The RN level of the line at any particular location and measurement frequency varies based on many factors. The primary factors are the line voltage, weather conditions, and statistical time of the noise occurrence. In terms of the variation with time, RN is described in statistical terms and is typically denoted as the percentage of the total time that the RN level is less than a certain level. For example, a RN level often referred to is the "50 percent fair weather level," meaning that the RN from the line can be expected to be less than this level for 50 percent of the total fair weather period (L_{50} $\text{dB}\mu\text{v}/\text{m}$).

Because of the frequencies involved, and the issues with designing based on foul weather

conditions (atmospheric interference due to precipitation), RI effects are ~~greater~~ realistically evaluated during fair weather conditions ~~and~~. TVI effects are ~~more~~ significant only during foul weather conditions. “Worst case” estimates are used for impact assessment.

General Characteristics of Community Noise

Table 3.2.11-3 identifies the typical ranges of common sounds heard in the environment. Noise environments and consequences of human activities are usually well-represented by an equivalent A-weighted sound level over a given time period (L_{eq}) or by the average day-night noise levels (L_{dn}). Noise levels are generally considered low when ambient levels are below 45 dB(A), moderate in the 45 to 60 dB(A) range, and high above 60 dB(A). Outdoor L_{dn} levels vary over 50 dB(A) depending on the specific type of land use. In wilderness areas, the L_{dn} noise levels average approximately 35 dB(A), 50 dB(A) in small towns or wooded residential areas, 75 dB(A) in urban downtown areas (e.g., City of Riverside), and 85 dB(A) near major freeways and airports. Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse levels of noise to public health.

Various environments can be characterized by levels that are generally considered acceptable or unacceptable. Lower levels are expected in rural or suburban areas than what would be expected for commercial or industrial zones. Nighttime ambient levels in urban environments are about seven decibels lower than the corresponding average daytime levels. The day-to-night difference in rural areas away from roads and other human activity can be considerably less. Areas with full-time human occupation that are subject to nighttime noise that are the same as daytime levels are often considered objectionable relative to noise disturbance. Noise levels above 45 dB(A) at night can result in the onset of sleep interference effects (U.S. Environmental Protection Agency [EPA] 1971). At 70 dB(A), sleep interference effects become considerable.

Noise Environment in Proposed Project Area

To gather more complete information on the most refined proposed routes, noise measurements were collected along the 230 kV (Table 3.2.11-1) and 69 kV (Table 3.2.11-2) proposed routes in February, 2011. These sites were selected in order to capture data newer data for the general land use categories along the route (e.g., residential, commercial) and provide a more accurate baseline for the determination of impacts than the 2009 conditions. The measurements included logging background ambient noise levels for a period of approximately one hour each during the day and at night (L_{EQ} denotes the average acoustic energy content during the time period which, in this case, is a one-hour period) in order to determine a day-night average noise level.

TABLE 3.2.11-1. AMBIENT NOISE MEASUREMENTS – PROPOSED 230 kV ROUTE

NOISE MEASUREMENTS – 230 KV LINE ROUTE			
LOCATION	LAND USE	LEQ DAY (DBA)	LEQ NIGHT (DBA)
Near UPS on North End of Line	Commercial (Near Highway I-15)	65.5	61.6
Park and Ride off of Limonite	Agricultural (Near Highway I-15)	66.3	61.3
68th Near Dana (Near Golf Course)	Residential/Agricultural	60.1	49.8

NOISE MEASUREMENTS – 230 KV LINE ROUTE			
LOCATION	LAND USE	LEQ DAY (DBA)	LEQ NIGHT (DBA)
Near Center of Grulia Ct.	Residential	52.4	42.0
Hidden Valley Wildlife Area	Park/Open Space	49.7	N/A*
Crest Ave/Julian Drive	Residential (Near Riverside Municipal Airport)	54.1	47.6
Industrial Area Near East End of Line	Industrial	58.7	50.6

* Park was closed from 4:30 pm until 7:00 am; therefore no measurements were made at night.

TABLE 3.2.11-2. AMBIENT NOISE MEASUREMENTS – PROPOSED 69 kV ROUTE

NOISE MEASUREMENTS – 69 KV LINE ROUTE			
LOCATION	LAND USE	LEQ DAY (DBA)	LEQ NIGHT (DBA)
Rutland near Arlington	Business/Office	68.1	59.1
Keller between Crest and Keller	Rural/Residential	58.4	48.9
Tyler between Magnolia and Hemet	Commercial	70.0	64.7
Harrison between Indiana and Saratoga	Business/Office (Near Highway 91)	69.8	67.6

The major noise sources in the Proposed Project Area are as follows:

- 1. Vehicular traffic on Van Buren Boulevard**
 Van Buren Boulevard runs approximately in a southeast to northwest direction in the Proposed Project area. The highway noise is 70 dB(A) (Community Noise Equivalent Level) to a distance of approximately 500 feet from either side of the highway and 60 dB(A) to a distance of approximately 1,200 feet from either side of the highway. Refer to Riverside General Plan 2025 (adopted November 2007), Figure N-5.
- 2. Vehicular traffic on State Highway 60**
 State Highway 60 runs approximately in a southeast to northwest direction north of the Proposed Project area. The highway noise is 70 dB(A) (Community Noise Equivalent Level) to a distance of approximately 1,000 feet from either side of the highway and 60 dB(A) to a distance of approximately 4,000 feet from either side of the highway. Refer to Riverside General Plan 2025 (adopted November 2007), Figure N-6.
- 3. Vehicular traffic on Interstate Highway 15**
 Interstate Highway 15 runs along the western margin of the Proposed Project area, closely paralleling approximately one half of the proposed 230 kV transmission line. The highway noise is 70 dB(A) (Community Noise Equivalent Level) to a distance of approximately 1,000 feet from either side of the highway and 60 dB(A) to a distance of approximately 4,000 feet from either side of the highway. Refer to Riverside General Plan 2025 (adopted November 2007), Figure N-6.

4. Vehicular traffic on State Highway 91

State Highway 91 runs approximately in a north to south direction. The highway is parallel to Segment C of the proposed new 69 kV subtransmission Line. The highway noise is 70 dB(A) (Community Noise Equivalent Level) to a distance of approximately 1,000 feet from either side of the highway and 60 dB(A) to a distance of approximately 4,000 feet from either side of the highway. Refer to Riverside General Plan 2025 (adopted November 2007), Figure N-6.

5. Riverside Municipal Airport

The Riverside Municipal Airport is south of the RERC Substation and adjacent to Segment A of the proposed new 69 kV subtransmission line. The southern boundary of the proposed Wildlife/Wilderness Substation is approximately 0.5 miles from the airport. The airport noise is 65 dB(A) (Community Noise Equivalent Level) for a distance of approximately 10,000 feet along and away from the runway and 55 dB(A) to a distance of approximately 20,000 feet from the center of the airport towards the northwest (approximately 15,000 feet towards the southeast). Refer to Riverside General Plan 2025 (adopted November 2007), Figure N-8.

Operational Characteristics of Proposed Project Components

230 kV Transmission Line

The proposed 230 kV transmission line is double-circuit. The phases comprise two subconductors separated by 18 inches. The subconductors are 1590 thousand circular mil (KCmil) aluminum conductor steel reinforced (ACSR) (Lapwing). The maximum operating voltage is 242 kV (as specified by SCE). The two circuits (for study purposes) are cross-phased (A-B-C top to bottom [one circuit] and C-B-A top to bottom [second circuit]). The audible noise levels were calculated using the Bonneville Power Administration's Corona and Field Effects Program, which provides the industry standard for these types of calculations. The maximum rain rate is assumed to be one inch per hour (considered "foul weather" condition for the Proposed Project). The calculated L_{50} foul weather audible noise at the edge of the right-of-way (ROW) (the edge of ROW is 50 feet from the 230 kV transmission centerline) is approximately 28 dB(A).

69 kV Double-Circuit Subtransmission Lines

Most of the 69 kV subtransmission line routes are double-circuit configuration. The phases comprise a single conductor, 954 KCmil ACSR (Rail). The maximum operating voltage is assumed to be 72.5 kV. The two circuits (for study purposes) are cross-phased (A-B-C top to bottom [one circuit] and C-B-A top to bottom [second circuit]). The maximum rain rate is assumed to be one inch per hour. The calculated L_{50} foul weather audible noise at the edge of the ROW (the edge of ROW is 20 feet from the 69 kV double-circuit subtransmission centerline) is less than 1.0 dB(A).

69 kV Single-Circuit Subtransmission Line

A few portions of the 69 kV subtransmission line routes are single-circuit. The phases comprise a single conductor, 954 KCmil ACSR (Rail). The maximum operating voltage is assumed to be 72.5 kV. The single-circuit phasing (for study purposes) is A-B-C top to bottom. The maximum rain rate is assumed to be one inch per hour. The L_{50} foul weather audible noise at the edge of the

ROW is less than 1.0 dB(A).

Wildlife and Wilderness Substations

Sources of audible noise within a substation include equipment such as transformers, voltage regulators, circuit breakers, and other intermittent noise generators. Among these sources, transformers have the greatest potential for producing noise. The broadband sound from fans, pumps, and coolers has the same character as ambient sound and tends to blend in with the ambient noise. In the substation, the electrical equipment (as identified above) can be classified as point noise sources. Because of spreading loss from point sources, approximately a 6 dBA reduction in noise can be obtained with each doubling of the distance between the source and the receiver.

230 kV and 69 kV Substation Upgrades

Additional equipment installed within existing substations would not affect the existing audible noise levels generated.

Noise Sensitive Receptors

Noise sensitive receptors and land uses are commonly locations where people reside, or areas where excessive noise may adversely impact the designated use of the land. Typically, noise-sensitive land uses include residences, hospitals, places of worship, libraries, and schools, as well as nature and wildlife preserves and parks. Open space and commercial areas are only considered noise sensitive if they are used for recreation.

Proposed 230 kV Transmission Line / Wilderness/Wildlife Substations

The proposed 230 kV transmission line route from the new Wilderness/Wildlife Substations runs primarily south along Highway I-15 and then along the Santa Ana River Trail before crossing Van Buren Blvd. There are a few residences adjacent to the route south of 68th Street. From the Proposed Project's centerline, the route is approximately 50 to 75 feet from the property lines of residences along Auld Street. There is one resident on Julian Drive with the property line approximately 50 feet from the centerline. There is one residence on Bradford Street with the property line approximately 110 feet from the centerline. Construction would not be continuous along the centerline, but would occur at discrete activity sites at each structure location separated by hundreds of feet. There are no hospitals or places of worship within 1,000 feet of the proposed route. VanderMolen School is located on the northwest corner of 68th Street and Wineville Avenue, over 300 feet from the proposed route. ~~The closest residences from Wildlife Substation are a distance of approximately 2,700 feet.~~ The closest residences from Wilderness/Wildlife Substations are a distance of approximately 2,200 feet north of the substations. Typical audible noise levels at the property line from the operation of the substations would range from 45 to 55 dB(A). At a distance of 500 feet from the substation fence, the audible noise level would reduce by approximately 6 dB(A). Therefore, based on a 6 dB(A) reduction for a doubling of distance from the source, at the approximate distance to the nearest residence (2,200 feet), the audible noise level would be reduced by approximately 20 dB(A) or equivalently a noise level of 35 dB(A) at the nearest residential area (based on the typical maximum noise level at the substation fence line).

The Santa Ana River Parkway Grant is located approximately 100 feet from the closest

substation fence line. The National Recreational Trail is located approximately 150 feet from the closest substation fence line. At these distances, the noise level will be approximately 50 dB(A), which is in the range of a living room environment as shown in Table 3.2.11-3.

Wilderness – Mountain View 69 kV Subtransmission Line

The Wilderness – Mountain View 69 kV subtransmission line route is located in industrial and residential areas. For the residential area, there are several homes and an apartment building with property lines along Industrial Avenue within a distance of 50 to 125 feet of the proposed route. There are no hospitals, schools, or parks close to the proposed route.

RERC – Harvey Lynn/Freeman 69 kV Subtransmission Lines

The RERC – Harvey Lynn/Freeman 69 kV subtransmission line routes are located primarily in residential areas. There are residences within 30 feet of the proposed route along Arlington Avenue, Cypress Avenue, Crest Avenue, Wells Avenue, Tomlinson Avenue, Mull Avenue, Jones Avenue, Hole Avenue, and Minnier Avenue. There are no hospitals or schools within 1,000 feet of the proposed route. There are places of worship within 150 feet of the proposed route. But ambient noise levels will be significantly higher than the transmission line noise levels. The Riverside Municipal Airport is east of the northern end of Segment A of the line route.

Wilderness – Jurupa Ave 69 kV Subtransmission Line

The Wilderness – Jurupa Ave 69 kV subtransmission line route is located in commercial and industrial areas.

TABLE 3.2.11-3. NOISE LEVEL RANGES

Sources of Noise	Noise Levels - dB(A)
Threshold of Pain	130 – 140
Pneumatic Chipper	120 – 130
Chain Saw	100 – 120
Loud Automobile Horn (At 3 Feet)	110 – 120
Diesel Locomotive (At 50 Feet)	85 – 105
Motorcycle	80 – 110
Power Lawnmower	80 – 95
Inside Motor Bus	80 – 90
Pleasure Motorboat	75 – 115
Passenger Train	70 – 90
Average Traffic on Street Corner	70 – 80
Home Shop Tools	65 – 110
Food Blender	65 – 85
Automobile (At 50 Feet)	60 – 90
Passenger in Automobile	60 – 90
Vacuum Cleaner	60 – 85
Air Conditioner (Window Units)	60 – 75
Conversational Speech	60 – 70
Clothes Dryer	50 - 70
Typical Business Office	50 – 60
Washing Machine	45 – 80
Refrigerator	45 – 70

Sources of Noise	Noise Levels - dB(A)
Living Room (Suburban Area)	40 – 50
Library	30 – 40
Bedroom at Night	20 – 30
Broadcasting Studio	10 – 20
Threshold of Hearing	0 – 10

Source: HUD (U.S. Department of Housing and Urban Development), *The Noise Guidebook*, <http://www.hud.gov/offices/cpd/energyenviron/environment/resources/guidebooks/noise/index.cfm>

Regulatory Setting

Audible Noise

Federal

Currently, there are no Audible Noise (AN) control regulations that are specifically concerned with AN from power facilities. The EPA has published guidelines relating to AN in general (EPA's document "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety", NTIS 550\9-74-004). This document recommends that the L_{dn} be limited to 55 dB(A) outdoors and 45 dB(A) indoors (L_{dn} and dB(A) noise classifications are defined in Methodology for Resource Inventory and Data Collection section above).

State of California

California encourages each local government entity to perform noise studies and implement a noise element as part of their general plan. Standards and implementation are administered by the California Office of Noise Control. The California Administrative Code (Title 4) has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The state land use compatibility guidelines are shown in Table 3.2.11-~~24~~.

Riverside County

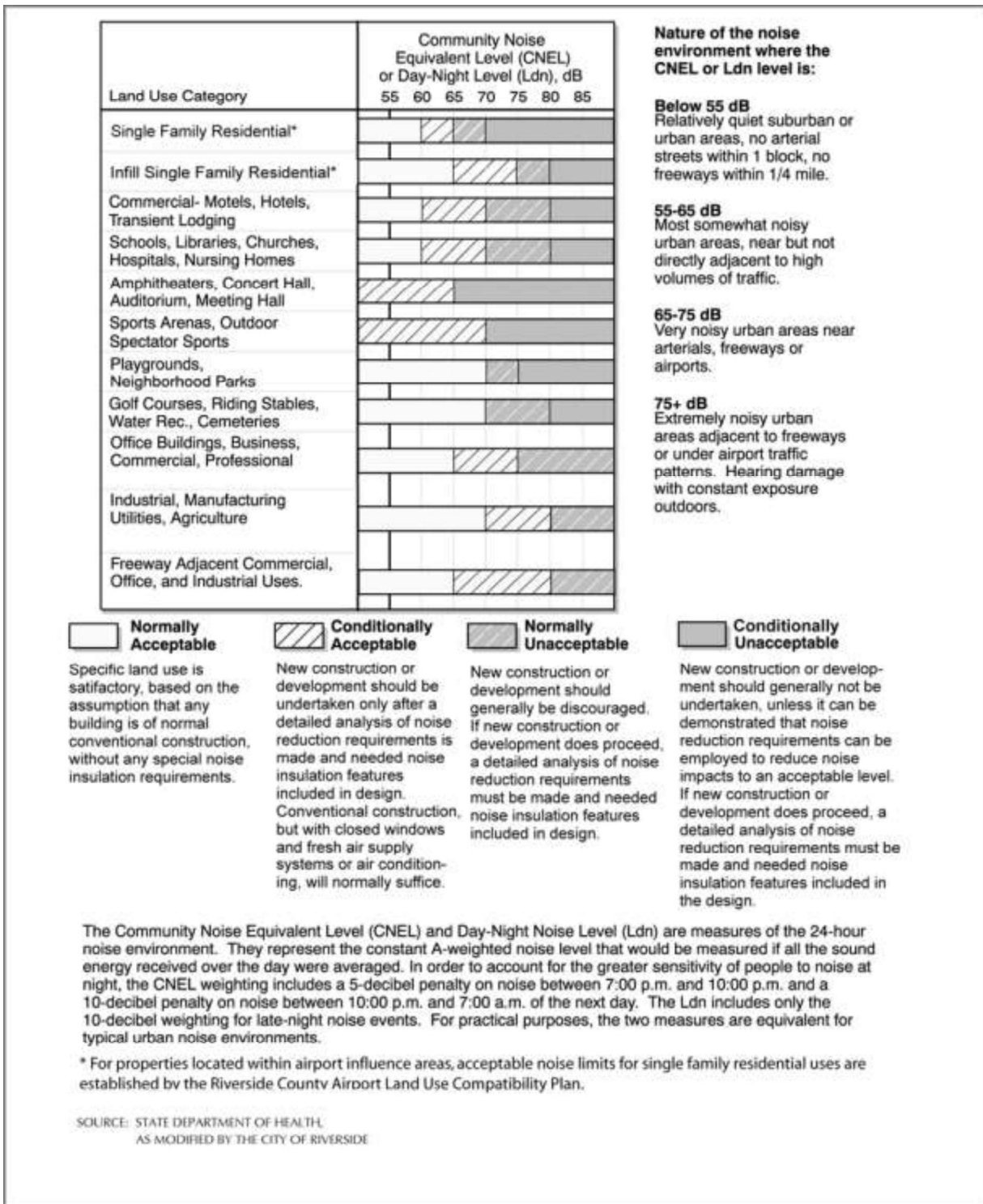
Riverside County adheres to California state laws with regard to noise levels (refer to the County of Riverside General Plan, Chapter 7 Noise Element, Page N-7. Table N-1 "Land Use Compatibility for Community Noise Exposure" is the same as the State's Community Noise Exposure chart shown in Table 3.2.11-4). Single and multiple family residential, group homes, hospitals, schools and other learning institutions and parks and open space lands where noise levels exceed 65 dB(A) are considered noise-sensitive. In business and professional offices where effective communication is essential, noise levels shall be mitigated to an interior noise level of 45 dB(A). The county also uses the California State Land Use Compatibility Chart (Table 3.2.11-4) as a guide to establish that the proposed land is: 1) a potential high noise producer; or 2) a potential noise-sensitive receptor.

TABLE 3.2.11-4. STATE LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT

Land Use Category	Community Noise Exposure – L _{dn} or Community Noise Equivalent Level (CNEL) (dB)													
	50		55		60		65		70		75		80	
Residential Low Density, Single Family, Duplex, Mobile Home	A	A	A	A	A									
				B	B	B	B	B	B					
										C	C			
Residential – Multi - Family	A	A	A	A	A	A	A							
						B	B	B	B					
										C	C			
Transient Lodging - Motel, Hotel	A	A	A	A	A									
						B	B	B	B	B	B			
												C	C	
Schools Libraries, Churches, hospitals, Nursing Homes	A	A	A	A	A									
						B	B	B	B					
										C	C	C	C	
Auditorium, Concert Hall, Amphitheaters	B	B	B	B	B	B	B	B	B					
										C	C	C	C	C
Sports Arena, Outdoor Spectator Sports	A	A	A	A	A									
	B	B	B	B	B	B	B	B	B	B	B			
										C	C	C	C	C
Playgrounds, Neighborhood Parks	A	A	A	A	A	A	A	A	A					
										C	C	C		
												D	D	D
Golf Courses, Riding Stables, Water Recreation, Cemeteries	A	A	A	A	A	A	A	A	A	A	A			
												C	C	C
														D
Office Buildings, Business Commercial and Professional	A	A	A	A	A	A	A	A	A					
										C	C	C	C	
												D	D	D
Industrial, Manufacturing, Utilities, Agriculture	A	A	A	A	A	A	A	A	A	A	A			
												C	C	C
													D	D
A	Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.													
B	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.													
C	Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.													
D	Clearly Unacceptable: New construction or development generally should not be undertaken.													

Source: California Governor’s Office of Planning and Research, 2003. *Guidelines for the Preparation and Content of the Noise Element of the General Plan*. Appendix A in State of California General Plan Guidelines. Sacramento, CA.

FIGURE 3.2.11-1. RIVERSIDE MUNICIPAL NOISE/LAND USE NOISE COMPATIBILITY CRITERIA



For construction activities for of the 230 kV portion of the Proposed Project, under Ordinance No. 847, the County of Riverside could consider providing a construction-related exception to the county sound level standards, if an application for a construction related exception has been filed and approved by the County’s Director of Building and Safety. According to Ordinance

847, an exception application shall not be approved unless: *the applicant demonstrates that the activities described in the application would not be detrimental to the health, safety or general welfare of the community. In determining whether activities are detrimental to the health, safety or general welfare of the community, the appropriate decision making body or officer shall consider such factors as the proposed duration of the activities and their location in relation to sensitive receptors. If an exception application is approved, reasonable conditions may be imposed to minimize the public detriment, including, but not limited to, restrictions on sound level, sound duration and operating hours.* Ordinance 847 exempts facilities and capital improvement projects of a governmental agency. The 69 kV components of the Proposed Project are not subject to this Ordinance because they would be built entirely within the City of Riverside.

City of Riverside

The City of Riverside's Noise Ordinance (Ord. 6273 § 1 (part), 1996, Title 7) states, "It is determined that certain noise levels are detrimental to the public health, safety and welfare and are contrary to the public interest. Therefore, the City Council declares that creating, maintaining, causing or allowing to create, maintain or cause any noise in a manner not in conformity with the provisions of this chapter, is a public nuisance and shall be punishable as such. In order to control unnecessary, excessive and/or annoying noise in the City, it is declared to be the policy of the City to prohibit such noise generated by the sources specified in this chapter. It shall be the goal of the City to minimize noise levels and mitigate the effects of noise to provide a safe and healthy living environment."

The phrase "unnecessary, excessive and/or annoying noise" is not explicitly defined, although Title 7 does define Intrusive Noise and Noise Disturbance. Intrusive Noise is defined as "a noise which intrudes over and above the existing ambient noise. The relative intrusiveness of the sound depends upon its amplitude, duration, frequency and time of occurrence, tonal or informational content, and its relationship to the prevailing ambient noise level (Ord. 6273 § 1 (part), 1996, Section 7.10.090). Noise Disturbance is defined as "any sound which endangers or injures the safety or health of humans or animals, or annoys or disturbs a reasonable person of normal sensitivities or endangers or injures personal or real property (Ord. 6273 § 1 (part), 1996, Section 7.10.125)." The listed exterior sound level limits for M-1 and R-1 zone classifications are 70 dB(A) and 55 dB(A) (daytime)/45 dB(A) (night time) respectively (Ord. 6273 § 1 (part), 1996, Section 7.10.010). The City of Riverside noise compatibility chart is shown in Figure 3.2.11-1. The compatibility for community noise for the City and County are applicable to operation and new construction activities. The City and County both have an "Acceptable" maximum noise exposure limit of 60 dB(A) for sensitive land uses such as residential, lodging, school libraries, churches, hospitals, and nursing homes.

In addition, the city's noise ordinance limits construction activities to the hours of 7 a.m. to 7 p.m. on weekdays, and to 8 a.m. to 5 p.m. on Saturdays. Construction is not allowed on Sundays and Federal Holidays (Ord. 6273 § 1 (part), 1996, Section 7.35.010 – B.5). Provisions of the noise code do not apply to construction, maintenance and repair operations, which are deemed necessary to serve the best interest of the public and which are conducted by public agencies and/or utilities or their contractors.

Radio Noise (RN)

According to Federal Communications Commission (FCC) rules, power transmission falls into the category of “incidental radiation device” that is defined as “a device that radiates radio frequency energy during the course of its operation although the device is not intentionally designed to generate radio frequency energy.” For purposes of these regulations, harmful interference is defined as “any emission, radiation or induction that endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radio communication service operating in accordance with this chapter.”

The FCC identifies radio noise field strength requirements on the basis of two service areas: 1) Primary service areas (city and rural); and 2) Secondary service areas (primarily rural areas with weaker signals). According to the FCC, primary limitations to types of radio service are from atmospheric and man-made noise. The types of service are furthered classified in six grades of service: Grades A, B, C, D, E and F (Grade A would be the radio service with the strongest signals).

Sparking or gap discharge occurs between two elements of a transmission line conductor that are poorly connected. This phenomenon is more apparent during dry weather because water droplets on the line tend to reduce the resistance in the connection, allowing current to flow freely. Sparking interferes with broadcasts into the ultra high frequency (UHF) range (above 300 MHz), which makes sparking the primary cause of television interference. It is estimated, by experience, that 90- to 95 percent of all RN complaints are sparking-related. Possible poor connections of transmission line conductors would be corrected by standard maintenance procedures by RPU.

Wireless devices typically operate in the GigaHertz (referring to billions of cycles per second or Hertz) frequency range, which would not be impacted by 60 Hertz power lines.

Impact Assessment

Short-term construction impacts and long-term operational impacts could result from implementation of the Proposed Project. In this section, the potential incremental impacts associated with the construction and operation of the Proposed Project are analyzed.

Significance Threshold Criteria

There are two criteria for judging noise impacts. First, noise levels projected for the Proposed Project must comply with the relevant federal, state, or local standards or regulations. Mitigation of noise impacts that can affect worker safety and health is enforced by OSHA (by Cal/OSHA in California), but effectiveness of such mitigation depends on the vigilance of supervisors in seeing that workers use protective gear in high noise environments. Noise impacts on the surrounding communities are enforced through local noise ordinances supported by nuisance complaints and subsequent investigation.

The second measure of impact recognized by noise analysts is the increase in noise levels above the existing ambient level as a result of the introduction of a new source of noise. A change in noise level due to a new noise source can create an impact on people. Outside controlled laboratory conditions, noise level changes below 3 dB(A) are not detectable by the human ear. Although individuals’ reactions to changes in noise vary, empirical studies have shown people

begin to notice changes in environmental noise levels of around five dB(A) (EPA 1974). Thus, average changes in noise levels less than five dB(A) cannot be considered as producing a potentially significant adverse impact because changes of that magnitude are imperceptible by the vast majority of persons. For changes in noise levels above five dB(A), it is difficult to quantify the impact beyond the determination that: the greater the noise level change, the greater the impact. A judgment commonly used in community noise impact analyses associates long-term noise increases of 5 to 10 dB(A) with “some impact.”

Noise level increases of more than 10 dB(A) are generally considered significant (EPA1974). In the case of short-term noise increases, such as those from construction, the 10 dB(A) threshold between “less significant” and “significant” impact is often replaced with a criterion of 15 dB(A) (EPA1974). These noise-averaged thresholds are to be lowered when the noise level fluctuates, or the noise has an irritating character with considerable high frequency energy, or if it is accompanied by subsonic vibration. In these cases, the impact must be individually estimated (EPA1974).

The assessment of significant noise impacts is weighed in consideration of CEQA requirements. For this discussion, CEQA describes a significant effect as one that would create a substantial, or potentially substantial, adverse change in the noise conditions of the environment in the area. Appendix G of the CEQA guidelines defines the criteria and areas of concern regarding a project’s potential impact on noise-sensitive receptors by considering if a project would result in:

- a) 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 of other agencies.
- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Environmental Impacts

a) 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 of other agencies.

Less Than Significant Impact. The Proposed Project operation would not expose persons to noise levels in excess of standards established in plans or noise ordinances for a majority of time the facilities are in operation. Corona effects—faint but audible noise caused by small, localized discharges most commonly on high-voltage (345 kV and above) transmission lines—from the 69 kV subtransmission and 230 kV transmission lines would not result in short-term, temporary instantaneous noise levels in excess of local standards (as previously noted in the “Regulatory Setting-Audible Noise” subsection, the City of Riverside and the County of Riverside state an “Acceptable” maximum noise exposure limit of 60 dB(A) for sensitive land uses such as

residential, lodging, school libraries, churches, hospitals, and nursing homes). The 230 kV transmission line route is approximately 100 to 150 feet from some residences. The calculated audible noise level at a distance of 50 feet from the center of the transmission line is 28 dB(A), which is significantly below the local standard and is in the range of a bedroom at night (Table 3.2.11-3). The primary noise sources in substations are the transformers, reactors, and circuit breakers. The maximum sound level is between 65 and 80 dB(A) (IEEE 2006) which is characteristic of noise caused by a low-frequency humming sound with occasionally louder impulse sounds during switching of a breaker. The closest residential property (approximately 2,700~~200~~ feet north of the substation) would not be impacted by the substation noise because the great distance between the source of potential noise and the residence would attenuate any noise impact to the point that it would not be perceived at the residence. Therefore, operation of the Proposed Project would not cause a change in the acoustic environment of the Project Area. Operational noise levels from the Wildlife/Wilderness Substations will be less than 50 dB(A) at the area of protected habitat. Construction noise levels will be temporary and generally approximately 70 to 75 dB(A) due to truck traffic during construction. The truck traffic would not impact residential areas. These noise levels would not be a significant impact to the protected habitat areas around the substations.

The proposed 230 kV transmission line would also traverse the City of Riverside's undeveloped Hole Lake and Savi Ranch park sites, various trails including the Santa Ana River Trail, and the Hidden Valley Wildlife Area. Construction activities would result in noise that may disrupt recreational and/or open space areas. During construction, ground work would be required at each structure location as well as along select roadways between the locations. These impacts would be temporary and of short duration, lasting only as long as required to complete the activity in a given location. Depending on the activity (structure erection, transmission line stringing, etc.), the duration of construction activities at any one location along the ROW would generally range from a few minutes to a few days, and would not result in a significant impact to recreationists.

Temporary construction-related noise would occur, but would be within allowable levels for temporary public facilities construction described in local plans and ordinances. Construction noise can be created from on-site and off-site sources. On-site noise sources would principally consist of the operation of heavy-duty diesel and gasoline-powered construction equipment. Off-site noise sources would include vehicles commuting to and from the job site, as well as from trucks transporting material to the staging areas or construction ROW.

Two types of noise are associated with on-site construction activities: intermittent and continuous. On-site construction noise would occur primarily from heavy-duty construction equipment (e.g., dozers, backhoes, cranes). It is estimated that dozers would be used on the Proposed Project site for approximately six months. However, because of the dispersed nature of particular construction locations associated with power line construction, equipment would be briefly present in any one location for as long as a few days or as little as a few hours. Noise levels from these individual pieces of equipment are shown in Table 3.2.11-5). It should be noted that noise levels are calculated based on the assumption that noise from a localized source is reduced by approximately 6 dB(A) with each doubling of distance from the source of noise because of spreading loss (EPA 1974).

Noise at construction sites is typically dominated by the loudest piece of equipment, with a

complex additive effect of additional pieces of equipment. The maximum intermittent construction noise levels would peak in a range of from 80 to 90 dB(A) at 50 feet for supporting structure assembly and tamping operations. Peak values would fall to 74 to 84 dB(A) at 100 feet and 68 to 76 dB(A) at 200 feet. Generally accepted construction noise exposure values for similar transmission projects are approximately 77 to 83 L_{EQ} dB(A) at 50 feet. These exposure values would attenuate to 71 to 77 L_{EQ} dB(A) at 100 feet, 65 to 71 L_{EQ} dB(A) at 200 feet and 59 to 65 L_{EQ} dB(A) at 400 feet. Direct noise impacts would result from construction activities occurring adjacent to sensitive receptors, such as houses and recreation areas. However, this noise would be short-term, occurring during daylight hours when the ambient noise levels are higher within the Proposed Project area (see Tables 3.2.11-1 and 3.2.11-2). Work activities would be scheduled during normal work days, with no weekend or holiday construction planned; thus, no potentially significant impacts would result.

While noise levels would vary for different construction tasks, the maximum predicted noise levels would occur from bulldozers, drilling (auger operation), and helicopters used for stringing operations (see Table 3.2.11-5 below for these estimated noise levels). These temporary and intermittent noise levels would not represent a substantial increase in ambient noise levels, as shown in Tables 3.2.11-1 and 3.2.11-2. Furthermore, the construction noise would be less at sensitive receptors due to their distance to the transmission lines and substations as described above in the section titled *Noise Sensitive Receptors*. The temporary helicopter use during construction would also not be considered substantial or significant because helicopters will be used during daytime hours, and would be used in an area where other aircraft are typically heard in background ambient noise levels, due to the Proposed Project's proximity to the Riverside Municipal Airport, along with several others.

TABLE 3.2.11-5. CONSTRUCTION NOISE SOURCES

Equipment	Range of Noise Level (dB(A)) at 50 Feet
Pumps	69 – 71
Generators	72 – 83
Backhoes	72 – 92
Tractors, Dozers	83 – 89
Front-end Loader	72 – 86
Drill Rig	70 – 85
Compressors	74 – 88
Concrete Mixers	75 – 88
Cranes (Movable)	76 – 86
Helicopters	65 – 90

Source: Cowan 1984, Federal Transit Administration 1995, Nelson 1987, USDA Forest Service 1980.

Off-site noise during construction would occur primarily from commuting workers and from various truck trips to and from the construction sites. The procedures for bringing personnel, materials, and equipment to each structure site would vary along the route alignments. However, it is presumed that most workers would be meeting at one of the staging areas and would travel to the construction site in commuter vans or buses. It is also assumed that truck trips would be required to haul structures, conductor line, and other materials to the construction sites. The peak noise levels (approximately 70 to 75 dB(A) at 50 feet) associated with passing trucks and commuting worker vehicles would be short-term in duration and would generate adverse, but less than significant, impacts.

To minimize ground disturbance within a matrix of intensive land uses, SCE plans to use light duty helicopters (Hughes 500-E) to efficiently and rapidly pull light-weight sock lines from structure to structure during conductor stringing. This is a widely used helicopter commonly used as an aerial tour helicopter in parks and other scenic areas. During stringing activities, helicopters would generate intermittent noise levels of approximately 80 dBA at 200 feet. Helicopters would operate for a short time at any given location. Because the Proposed Project area is in proximity to approaches to the Riverside Municipal Airport, construction helicopter flights would enter the Project area immediately and not pass over residential areas during Project ingress and egress.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Less Than Significant Impact. The Proposed Project operation would not produce ground-borne vibration or noise. Temporary construction-related vibrations and noise would occur, but would dissipate rapidly and not be excessive compared to other construction work occurring in the Proposed Project area. The use of jackhammers, pile-drivers, and explosives for blasting are not included in the Proposed Project description and will not be used.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Less Than Significant Impact. The Proposed Project would be in compliance with audible noise requirements. Permanent noise associated with the Proposed Project would be caused mainly by the voltage on the conductors and other energized project elements. Corona noise (crackle and hiss caused by imperfections in conductor surfaces) is the issue. Although corona noise varies widely with weather conditions and may be audible, no significant corona should be produced by lines energized below 345 kV (EPRI 1987). There would neither be a substantial nor a permanent increase in noise level.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Less Than Significant Impact. Construction of the Proposed Project transmission and subtransmission lines would produce a temporary increase in noise level. Construction noise is discussed under Criterion a) above. There would be no other source of temporary or periodic increases in noise levels.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. Riverside Municipal Airport and surrounding area ambient noise levels are 55 to 60 dB(A) for distances of several thousand feet from the centerline references of these transportation areas (described in more detail in the Noise Environment in Proposed Project Area section). Therefore, noise from the transmission lines would not be higher than existing airport and highway noise. Construction workers would not be exposed to excessive noise from the airport. The long-term operational noise from the transmission and subtransmission lines would not be higher than existing ambient noise sources surrounding the airport and roads. The noise may be higher due to short-term construction work activities.

Being a power line project, the Proposed Project would not result in the construction of occupied structures that would result in an increase in the number of people residing or working in proximity to the Riverside Municipal Airport. Therefore, the Proposed Project would not result in people residing or working in the area being exposed to excessive noise levels. Maintenance and storage buildings at the proposed substations would not be permanently occupied.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no private airstrips in the Proposed Project area.

Significant Unavoidable Impacts

The Proposed Project will not result in any significant unavoidable impacts associated with noise.

References

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3.2.12 POPULATION AND HOUSING

A technical report entitled “Socioeconomics Technical Report” (POWER Engineers, Inc. and Economic Planning Resources, April 2010) was used to prepare this summary of existing conditions and potential impacts as a result of the Proposed Project and alternatives. Please consult this report in the technical appendices for additional information related to population and housing.

Methodology for Resource Inventory and Other Data Collection

Population and housing characteristics were obtained for Riverside County, San Bernardino County, and the cities of Riverside, Corona, Norco, Moreno Valley, Colton, Fontana, Grand Terrace, Loma Linda, Rialto, and Ontario.

Environmental Setting

Riverside County encompasses 7,207 square miles with a population density of 292 persons per square mile in 2007. Riverside County has experienced a high growth rate for the past 20 years, increasing 80.1 percent (3.1% annually) between 1990 and 2009.

The City of Riverside’s population has also grown steadily, but at a lower rate than that of the County. Some of this growth has been due to annexations. The City’s estimated January 1, 2010 population was 304,051 (DOF 2010) or 3,731 persons per square mile (81.5 square miles).

The City of Riverside is part of an urbanized area, bordered by the cities of Norco and Corona to the west, and Moreno Valley to the east. Also bordering the City of Riverside are the City of Jurupa Valley (the Jurupa Census County Division [CCD], as named by the U.S. Bureau of the Census) to the north, and the Lake Matthews CCD and Woodcrest Census Designated Place (CDP) to the south. All of these communities are within Riverside County. Southern urbanized areas of San Bernardino County lie within a ready commute to the Proposed Project area; these areas function as a well-integrated part of the City of Riverside urbanized area.

As with much of southern California, the City of Riverside populations, as well as the populations of adjacent incorporated cities, are diverse in terms of racial and ethnic heritage, with large Hispanic populations.

The housing markets in Riverside and San Bernardino Counties exhibit a moderate degree of tightness. As of January 1, 2010, 13.0 and 11.6 percent of units were vacant in Riverside and San Bernardino counties, respectively (California Dept. of Finance 2010). In the cities in the Proposed Project area, vacancy rates are substantially lower, ranging from 2.3% in Norco to 4.5% in Riverside (California Dept. of Finance 2010). Higher County vacancy rates primarily reflect the many seasonally vacant units, which are less prevalent in the cities.

Regulatory Setting

Local

Development of the Proposed Project would follow the California Relocation Assistance and Real Property Acquisition Guidelines which are codified in the California Code of Regulations under Title 25, Division 1, Chapter 6, Subchapter 1. According to Title 25, section 6002(b)

(Statement of Purpose and Policy):

The Guidelines are designed to carry out the following polic[y] of the Act:

(2) In the acquisition of real property by a public entity, to ensure consistent and fair treatment for owners of real property to be acquired, to encourage and expedite acquisition by agreement with owners of such property in order to avoid litigation and relieve congestion in courts, and to promote confidence in public land acquisition.

As described in Chapter 2, SCE would be the owner/operator of the 230 kV transmission line and associated Proposed Project components, while RPU would be the owner/operator of the 69 kV subtransmission line Proposed Project components. SCE would be responsible for acquiring its own ROWs; RPU would construct its components in existing public ROWs or within property already owned by the City, such as existing substation locations.

Significance Threshold Criteria

The following significance criteria are based on state CEQA guidelines. The CEQA Environmental Checklist Form has the following criteria as it relates to population and housing.

Would the project:

- a) 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)?
- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Environmental Impacts

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project and alternatives would result in significant impacts to population and housing.

a) 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)?

Less than Significant Impact. As a result of construction of the Proposed Project, population is estimated to temporarily increase by 774 persons. This increase is anticipated to occur from the time construction begins (anticipated December 2013) until the Proposed Project is completed during the first half of 2015. Some minimal in-migration of job-holders and their dependents who may remain in the area permanently is likely to occur even as a result of short-term construction. This population increase was estimated by assuming workers for jobs that would be created from directly supplying the Proposed Project with goods and services, as well as workers taking employment as a result of “ripple” effects. These estimates were derived using the input-output economic model *Impact Analysis for Planning (IMPLAN)*.

The estimated temporary population increase of 774 persons was based on an IMPLAN-

estimated 244.3 households affected by ripple effect jobs multiplied by 3.17, which was the year 2000 census average number of persons per household for the Riverside-San Bernardino Standard Metropolitan Statistical Area. If this population increase were to occur within the City of Riverside (2010 population 304,051), the City's population would increase by under 0.3 percent. However, it is likely that population increase would occur throughout the Proposed Project area, which includes various incorporated cities as along with a large portion within unincorporated Riverside County. The temporary population increase of 744 persons is a standard statistical estimate based on ~~standard statistics~~ secondary (or ripple) effect and does not ~~caused by represent workers and their dependents directly associated with the construction or operation of~~ the Proposed Project. This population increase was estimated by assuming workers for jobs created in firms directly supplying the Project, as well as workers taking employment as a result of ripple effects.

The Proposed Project is intended to accommodate, rather than encourage, area growth. As noted in Chapter 1 of this DEIR, Purpose and Need, the Proposed Project was developed in response to the City's electric demand exceeding the capacity of the interconnection with the regional system. Both RPU's and SCE's systems are proposed for expansion under the Proposed Project in order to meet projected load growth and to provide a second interconnection for system reliability.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

No Impact. The Proposed Project will not displace any dwellings, so there would be no need to construct replacement housing elsewhere. The Proposed Project construction work force is likely to be drawn from both within and outside the study area. Project workers would be employees of contractor(s), subcontractors, SCE crews (230 kV transmission line and Wildlife Substation only), RPU crews (69 kV subtransmission lines, upgrades to existing substations, and Wilderness Substation), and administrative/management personnel. The construction work force members who do not reside locally would likely stay in transient accommodations, such as hotels or RV parks for the duration of their employment on the Proposed Project and would unlikely bring dependents, given the short-term nature of the construction.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

No Impact. The Proposed Project will not displace any dwellings, so there would be no need to construct replacement housing elsewhere.

Significant Unavoidable Impacts

The Proposed Project will not result in any significant unavoidable impacts to Population and Housing.

References

California Department of Finance (DOF). 2010. City/County/State Population and Housing Estimates.

POWER Engineers, Inc. and Economic Planning Resources. 2010. "Socioeconomics Technical Report-Riverside Transmission Reliability Project." Prepared for Riverside Public Utilities, April 2010. Anaheim, CA and Seattle, WA.

3.2.13 PUBLIC SERVICES AND UTILITIES

This section describes the environmental setting, regulatory setting, and potential impacts to public services and utilities systems resulting from implementation of the proposed RTRP. This section examines how implementation of the RTRP would alter the present conditions of existing services and systems.

Environmental Setting

Public services (i.e., fire protection, police protection, schools) and utilities systems (i.e., electricity, natural gas, water, wastewater, and landfill facilities) in the region are typically provided by the applicable county or municipality. ~~Jurisdictions in the Proposed Project area include Riverside County and the cities of Riverside and Norco.~~ SCE transmission elements of the Proposed Project (I-15 Route) would be ~~predominantly~~ located on in unincorporated lands in Riverside County, ~~with a small portion of both routes extending south into~~ and the City cities of Jurupa Valley, Riverside. ~~A small portion of the Proposed Project would also traverse the City of~~ and Norco. RPU subtransmission and substation elements of the Proposed Project would be located entirely within the City of Riverside. Entities providing public services and utilities in the RTRP area are described in detail in the sections below.

Fire Protection and Emergency Medical Response Services

Fire protection services that would serve the RTRP and surrounding area include the Riverside County Fire Department, the City of Riverside Fire Department, and the City of Norco Fire Department.

Riverside County Fire Department

The Riverside County Fire Department (RCFD) operates a total of 95 fire stations, comprising 17 battalions that provide fire suppression, emergency medical, rescue, and fire prevention services. The equipment utilized by the department is suitable for response to both urban and wildland fire emergency conditions. The RCFD is staffed with approximately 952 career and 1,100 volunteer personnel, and currently serves approximately two million residents in an area of 7,004 square miles. This service area consists of all unincorporated areas in Riverside County, 18 contract cities, and one Community Service District (CSD). Under contract with the California Department of Forestry and Fire Protection (CAL FIRE), the RCFD is the Operational Area Coordinator for the California Fire and Rescue Mutual Aid System for all fire service jurisdictions in the County of Riverside. As such, RCFD has also been given the authority to enter into several automatic aid agreements with other city jurisdictions, as well as with adjacent National Forests. The cities and CSD served by the RCFD include Banning, Beaumont, Calimesa, Canyon Lake, Coachella, Desert Hot Springs, Lake Elsinore, Indian Wells, Indio, Jurupa Valley, La Quinta, Menifee, Moreno Valley, Palm Desert, Perris, Rancho Mirage, San Jacinto, Temecula, Wildomar, and the Rubidoux Community Services District (RCFD, 2010).

In addition to unincorporated areas of Riverside County, the proposed RTRP traverses portions of the Cities of Riverside and/or Norco, which administer and operate their own fire departments.

City of Riverside Fire Department

The City of Riverside Fire Department operates a total of 14 fire stations, comprising two battalions that provide fire suppression services, as well as responding to traffic accidents,

medical aids, and many other types of emergencies. The department responds to an average of 26,000 calls per year, and is staffed with emergency response personnel that work a three-platoon schedule consisting of a 56-hour work week. In addition to training in all disciplines of firefighting, the department's personnel have specialized training in swiftwater response, hazardous materials, arson investigation, medical emergencies, and rescue. A 911 dispatch service is in place, and the Operations division supports mutual aid agreements with the cities of Corona, Moreno Valley and other County areas as well as being part of the state mutual aid response system for large incidents (City of Riverside Fire Dept., 2010).

City of Norco Fire Department

The City of Norco Fire Department has provided a variety of services to citizens in its service area since 1957. Services include fire suppression, emergency medical care (i.e., Basic Life Support [EMT-1 level] and Advanced Life Support ([EMT paramedic level])), rescue, hazardous materials response, public fire safety education, and disaster preparedness. In addition, the Norco Fire Department has a mutual aid agreement with the Corona City Fire Department and CDF to respond to large vegetation or structure fires. The department currently operates from two station facilities located in the eastern and western halves of the City (i.e., Corydon Avenue Fire Station, and Sixth Street Fire Station) (City of Norco Fire Department, 2010).

Table 3.2.13-1 identifies fire stations located within one mile of the RTRP.

TABLE 3.2.13-1. FIRE STATIONS WITHIN ONE MILE OF THE RTRP

Jurisdiction	Fire Station Name	Fire Station Address	RTRP Component Within One Mile
Riverside County and City of Jurupa Valley	Pedley Fire Station	9270 Limonite Ave, Pedley	I-15 Route, Van Buren 230 kV Route
	Glion Avon Fire Station	10400 San Sevaine Way, Glion Avon	Van Buren Route
City of Riverside	Riverside City Fire Station # 12	9449 Andrew Street, Riverside	69 kV Route
	Riverside City Fire Station # 8	11076 Hole Avenue, Riverside	69 kV Route
	Riverside City Fire Station # 7	10191 Cypress Avenue, Riverside	69 kV Route
	Riverside City Fire Station # 5	5883 Arlington Avenue, Riverside	69 kV Route

Traffic and Law Enforcement Services

Law enforcement services are provided to the RTRP area by the Riverside County Sheriff's Department (RCSD) in unincorporated areas ~~Riverside County and the cities of the county Jurupa Valley and Norco~~, while the City of Riverside is served by the Riverside Police Department, ~~and the City of Norco contracts with the RCSD for its municipal police services~~. The California Highway Patrol provides additional traffic and law enforcement services along major transportation corridors in the RTRP area including Interstate 15 and State Route 60.

Riverside County Sheriff's Department

The Riverside County Sheriff's Department (RCSD) is a demand response agency that provides law enforcement services to 15 cities and one tribal community within a 7,310 square mile area. Core services provided by the RCSD's more than 3,000-person staff include general community policing, search and rescue, first response, emergency response, Coroner-Public Administrator duties, county-wide mutual aid coordination, and operation and maintenance of adult and

juvenile correctional facilities (RCSD, 2010).

Riverside Police Department

The Riverside Police Department (RPD) provides safety and emergency response services, as well as community programs and educational outreach to residents within its service area. A 911 emergency hotline is in place, and the City of Riverside Public-Safety Communications Center provides dispatch services related to Police, Fire, and Medical emergencies. Policing beats for the RPD are divided into four geographic areas, known as Areas of Command, with neighborhood police stations located in each of the major sections of the city and a Lieutenant Area Commander assigned to oversee the day-to-day policing needs of each community. The RPD staff includes a mixture of sworn officers and civilian personnel, and a precinct-based system assigns each officer to one of 133 Reporting Districts within the city (RPD Website).

School Districts

The RTRP area overlaps with the following school districts: Alvord Unified School District, Riverside Unified School District, Jurupa Unified School District, and Corona-Norco Unified School District (Riverside County Office of Education, 2009). There are ~~ten~~eleven schools located within one-quarter mile of the Proposed Project area. These schools are identified in Table 3.2.13-2 below.

TABLE 3.2.13-2. SCHOOLS LOCATED WITHIN 0.25 MILES OF THE RTRP

Jurisdiction	School	Address	RTRP Component Within 0.25 Miles
Riverside County City of Jurupa Valley	VanderMolen Elementary School	6744 Carnelian, Mira Loma (Jurupa Valley)	145 <u>230</u> kV Route
	VanBuren Elementary School	9501 Jurupa Road, Riverside	Van Buren Route
City of Riverside	La Granada Elementary School	10346 Keller Avenue, Riverside	69kV Route
	Arlanza Elementary School	5891 Rutland Street, Riverside	69kV Route
	Crest Haven School	5966 Robinson Avenue, Riverside	69kV Route
	Norte Vista High School	6585 Crest Avenue, Riverside	69kV Route
	Learning Bee Montessori Academy	10235 Wells Avenue, Riverside	69kV Route
	<u>Lovett's Children, Inc.</u>	<u>10744 Hole Avenue, Riverside</u>	<u>69 kV Route</u>
	Wells Middle School	10000 Wells Avenue, Riverside	69kV Route
	Hawthorne Elementary School	2700 Irving Street, Riverside	69kV Route
	Myra Linn Elementary School	10435 Branigan Way, Riverside	69kV Route
	Our Lady Queen of Angels Elementary School	4824 Jones Avenue, Riverside	69kV Route

Utilities Systems

Utility systems pertain to the distribution and use of electricity, natural gas, potable drinking water, stormwater, telecommunications, and solid waste, and are generally provided and managed by local jurisdictions, as well as water agencies, and privately contracted entities. Electricity and telecommunications services are typically installed above ground on utility towers and poles or are routed through underground conduit systems. Underground pipelines or conduits are also used to transmit utilities such as potable water, wastewater, stormwater, and natural gas. In an urban environment, most public service and utility infrastructures are located within public rights-of-way. Table 3.2.13-3 identifies the relevant utility service providers in the

RTRP area by jurisdiction.

TABLE 3.2.13-3. UTILITY SERVICE PROVIDERS BY JURISDICTION

Jurisdiction	Utility Service Provider
Riverside County and City of Jurupa Valley	<ul style="list-style-type: none"> Natural gas and electric service- SCE-Southern California Gas Company (<u>natural gas</u>), <u>SCE (electric)</u> Water service- Eastern Municipal Water District (EMWD) and <u>Jurupa Community Services District (EMWD) and Santa Ana River Water Company</u> Wastewater service- EMWD<u>Jurupa Community Services District</u>
City of Riverside	<ul style="list-style-type: none"> Natural gas - Southern California Gas Company Electric service - RPU Water service- RPU (in RTRP area); other water service providers in the City include: Western Municipal Water District, EMWD, and the Riverside Highland Water Company Wastewater service- Riverside Public Works Department
City of Norco	<ul style="list-style-type: none"> Natural gas and electric service- Southern California Gas Company (natural gas), SCE (electric) Water service- City of Norco Department of Public Works Wastewater service- City of Norco Department of Public Works

Sources: RCIP (2002), City of Riverside General Plan 2025, City of Norco General Plan

Solid Waste Landfills and Recycling Services

Riverside County and City of Jurupa Valley

The Riverside County Waste Management Department (RCWMD) is charged with the management of solid waste landfills and programs for solid waste recycling and diversion in Riverside County ~~and the recently incorporated City of Jurupa Valley.~~ Nonhazardous municipal solid waste (MSW) generated by commercial and residential sources ~~in unincorporated areas of Riverside County~~ is delivered to County landfills by waste hauling companies and self-haulers. The waste hauling companies operate under licensing agreements with the Riverside County Environmental Health Department, which requires the implementation of residential and some commercial curbside recycling programs.

MSW and waste containing large amounts of organic material is typically accepted by sanitary landfill facilities (Class III). Unclassified landfill facilities are suited to accept only inert waste (e.g., asphalt, concrete, and construction debris) that does not break down or fully decompose. All of the active landfills currently located in Riverside County are classified as Class III landfills, as per Title 27 of the California Code of Regulations (RCIP, 2002).

City of Riverside

The Riverside Public Works Department provides trash collection services to seventy percent of residences in the City of Riverside, while private collection services serve approximately 20,000 customers in the La Sierra, University, and Orangecrest neighborhoods. All solid waste collected is tipped at the Robert A. Nelson Transfer Station, which is owned by the County of Riverside. The waste is then transferred to either the Badlands Landfill in Moreno Valley, the El Sobrante Landfill located east of Interstate 15 south of the City of Corona, or the Lamb Canyon Landfill located between the City of Beaumont and the City of San Jacinto for disposal (City of Riverside, 2007). The City of Riverside has taken a proactive approach to recycling by consistently exceeding the waste diversion requirements of the Integrated Waste Management Act (Public Resources Code Section 41780), and by implementing several solid waste reduction

programs such as the Green Waste Collection Program, Clean Up Riverside's Environment (C.U.R.B), Recycling Market Development Zone, curbside recycling, and public outreach and education.

City of Norco

Solid waste disposal and diversion services in the City of Norco are provided by the RCWMD. MSW generated by commercial and residential sources in the City of Norco is disposed of at the El Sobrante Landfills. Riverside County requires the recycling of household materials and green waste in the City of Norco. Manure containment and recycling services for horse and cattle remains are provided by private waste management firms under contract with the city.

Table 3.2.13-4 provides information on the total and remaining capacities of solid waste landfills serving ~~the unincorporated Riverside County and the City of Riverside~~ Jurupa Valley, City of Riverside, and City of Norco.

TABLE 3.2.13-4. SOLID WASTE LANDFILLS SERVING THE RTRP AREA

Jurisdiction	Solid Waste Landfill	Scheduled Closure Date	Permitted Max Disposal/Day	Total Estimated Permitted Capacity	Total Estimated Capacity Used	Remaining Estimated Capacity
Riverside County <u>and</u> City of Jurupa Valley	Badlands	1/1/2016	4,000 tons/day	30,386,332 cy	8,520,240 cy (28%)	21,866,092 cy (72%)
	Lamb Canyon Sanitary	1/1/2023	3,000 tons/day	34,292,000 cy	13,383,829 cy (39%)	20,908,171 cy (61%)
	El Sobrante	1/1/2030	10,000 tons/day	184,930,000 cy	66,356,460 cy (35.9%)	118,573,540 cy (64.1%)
City of Riverside	Badlands	See above	See above	See above	See above	See above
	Lamb Canyon Sanitary	See above	See above	See above	See above	See above
	El Sobrante	See above	See above	See above	See above	See above
City of Norco	El Sobrante	See above	See above	See above	See above	See above

cy= cubic yards

Source: CIWMB, 2010.

Other Public Facilities

Other public facilities within ~~one mile of~~ the RTRP area include the Riverside Regional Water Quality Treatment Plant, the Pedley Station Metrolink, the Riverside-La Sierra Station Metrolink, Kaiser Permanente Riverside Medical Center, Parkview Community Hospital Medical Center, and Glen Avon Library.

Regulatory Setting

The following section summarizes the state and local utility and service system regulations, plans, and standards that are directly applicable to the Proposed Project and its alternatives. Activities associated with construction and operation of the Proposed Project would be consistent with all applicable plans and policies related to public services and utilities systems as they are described below.

State

Protection of Underground Infrastructure

Section 1, Chapter 3.1 “Protection of Underground Infrastructure,” Article 2 of California Government Code 4216 mandates utility providers to contact a regional notification center at least two days prior to excavation of any subsurface installations. The Underground Service Alert serves as the notification center for southern California. Any utility provider planning to begin an excavation project must call Underground Service Alert’s toll-free hotline. Subsequently, Underground Service Alert will contact utility companies with buried lines within 1,000 feet of the planned excavation area. Utility company representatives are required to flag the location of their facilities within the work area prior to the commencement of excavation activities. Construction personnel must probe and expose the underground utility conduits by hand prior to using power equipment for excavation.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) was adopted to redefine waste management practices and to minimize the volume and toxicity of solid waste that is disposed at landfill facilities in the state. Assembly Bill 939 requires that each local jurisdiction prepare a Source Reduction and Recycling Element (SRRE) to show reduction in the amount of solid waste being disposed to landfills, with diversion objectives of 50 percent by the year 2000. Table 3.2.13-5 summarizes the solid waste diversion rates recorded between 2004 and 2006 for the local jurisdictions within the RTRP area. No long-term data are available for the City of Jurupa Valley, incorporated July 2011.

TABLE 3.2.13-5 SOLID WASTE DIVERSION RATES (AS A PERCENTAGE OF THE TOTAL WASTE STREAM)

Jurisdiction	2004	2005	2006
Riverside County (Unincorporated)	54	54	53
City of Riverside	60	57	64
City of Norco	57	60	65

Source: CIWMB, 2010a

Local

Riverside County General Plan

The Riverside County General Plan (Circulation Element) includes the following policy which relates to utilities and service systems (Riverside County, 2003):

Policy C 25.2: Locate new and relocated utilities underground when possible. All remaining utilities shall be located or screened in a manner that minimizes their visibility by the public.

The Riverside County General Plan (Land Use Element) includes the following policies which relate to utilities and service systems (Riverside County, 2003):

Policy LU 5.1: Ensure that development does not exceed the ability to adequately provide supporting infrastructure and services, such as libraries, recreational facilities,

transportation systems, and fire/police/medical services.

Policy LU 5.2: Monitor the capacities of infrastructure and services in coordination with service providers, utilities, and outside agencies and jurisdictions to ensure that growth does not exceed acceptable levels of service.

Policy LU 5.4: Ensure that development and conservation land uses do not infringe upon existing public utility corridors, including fee owned rights-of-way and permanent easements, whose true land use is that of “public facilities”. This policy will ensure that the “public facilities” designation governs over what otherwise may be inferred by the large scale general plan maps. (AI 3)

Policy LU 5.10: Continue to utilize the Riverside County Fire Protection Master Plan as the base document to implement the goals and objectives of the Safety Element.

Policy LU 9.1: Require that new development contribute their fair share to fund infrastructure and public facilities such as police and fire facilities.

City of Riverside General Plan 2025

The Land Use Element of General Plan 2025 includes the following objective and policies which relate to utilities and service systems (City of Riverside, 2007):

Linear Aerial Utility Facilities

Objective LU-29: Minimize the visual impact of aerial facilities on the City’s landscape.

Policy LU -29.1: Promote the formation of districts for the undergrounding of utilities.

Policy LU -29.2: Investigate the feasibility of a city-wide undergrounding of utilities ordinance.

Policy LU -29.3: Investigate funding sources to underground existing City-owned utility facilities.

The Public Facilities and Infrastructure Element of the General Plan 2025 includes the following objective and policies which relate to utilities and service systems (City of Riverside, 2007):

Public Facilities and Infrastructure Element

Objective PF-6: Provide affordable, reliable and, to the extent practical, environmentally sensitive energy resources to residents and businesses.

Policy PF-6.2: Ensure that adequate back-up facilities are available to meet critical electric power needs in the event of shortages or temporary outages.

Impact Assessment

Significance Threshold Criteria

As derived from other environmental impact assessments and Appendix G of the CEQA guidelines, significant impacts to public services, utilities and service systems would occur if the Proposed Project would:

- a) Result in substantial adverse impacts associated with the construction of new or physically altered governmental facilities needed to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
 - i. fire protection;
 - ii. police protection;
 - iii. schools, parks, or other public facilities.
- b) ~~Fail to comply with~~Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- c) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- d) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- e) ~~Exceed existing~~Have insufficient water supplies available to serve the project from existing entitlements and resources.
- f) Exceed existing wastewater capacity.
- g) ~~Exceed existing~~Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- h) Conflict with federal, state, and local statutes and regulations related to solid waste.
- i) Cause utility system disruptions or cause a co-location accident through the crossing or shared location with another utility line during construction of the Project³.

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.13-6 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to utilities. No EPEs were identified for public services by RPU or SCE. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

³ This condition was derived from other environmental impact assessments and is not part of Appendix G of the CEQA Guidelines.

TABLE 3.2.13-6. ENVIRONMENTAL PROTECTION ELEMENTS—UTILITIES AND SERVICE SYSTEMS

Environmental Protection Element	Description
UTIL-1	Disposal of Construction Waste Material. Recyclable construction waste materials shall be recycled. Non-recyclable waste materials shall be categorized and disposed of at a licensed location.
UTIL-2	Irrigation. Substation landscaping shall be planted in accordance with a landscaping and irrigation plan. The plan shall incorporate the use of drought tolerant, low maintenance and, to the extent possible, native plants to conserve water. This EPE does not address revegetation requirements from ground disturbance associated with temporary work areas as set forth in other EPEs or mitigation measures elsewhere in this DEIR.

Environmental Impacts

a) Result in substantial adverse impacts associated with the construction of new or physically altered governmental facilities needed to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

ai.) Fire Protection?

Less than Significant Impact. Fire protection and emergency response services in the RTRP area are provided by the RCFD in unincorporated ~~areas of~~ Riverside County and the City of Jurupa Valley, the City of Riverside Fire Department in the City of Riverside, and the City of Norco Fire Department within the city's own municipal boundaries.

Construction of the Proposed Project may generate a temporary increase the demand for fire protection services in the RTRP area. A portion of the Proposed Project area includes land containing dry brush near the banks of the Santa Ana River. Although unlikely, fire suppression services may be required during Proposed Project construction if sparks generated by idling construction vehicles or equipment accidentally ignite dry vegetation located in or adjacent to Proposed Project sites, rights-of-way, or staging areas. To minimize fire potential, crews would be required to avoid the idling of construction vehicles and power equipment when not in use.

Transmission and subtransmission infrastructure may present a fire hazard during Proposed Project operation, requiring the need for fire suppression services. Incidences of fire could occur if tree limbs or structures were to interface with a live phase conductor. The likelihood of this occurring would be reduced by the periodic clearing of vegetation within Proposed Project rights-of-way. Similarly, structures that may present a fire hazard and danger to the public would be restricted from the rights-of-way.

Electrical substations contain fuel and ignition sources that may present a fire hazard during facility construction or operation, potentially requiring the need for fire suppression services. The main components of a substation that pose a fire hazard are the electrical cables, which provide a source of fuel supply and ignition, and the mineral oil-insulated electrical equipment (i.e., transformers, reactors, and circuit breakers) that can ignite if an electrical failure were to occur.

To minimize fire incidences and unnecessary burden on fire protection providers, proper fire-safety standards established in the RTRP Fire Management Plan would be followed relative to Proposed Project construction, and construction personnel would be trained to use proper fire prevention and management techniques (see Section 3.2.7, Hazards and Hazardous Materials).

Electrical equipment and fencing at the substation would be grounded to prevent unexpected surges that could ignite fires, requiring a response. In the instance of fire, RPU would also coordinate with the County and the local fire district to ensure that construction activities and associated lane closures would not hinder emergency response pathways or delay response time.

Construction of the Proposed Project may generate a temporary increase to the demand for emergency response services in the Proposed Project area. Emergency medical services may be required in the event of construction-related injury or other emergency situations. To minimize the potential for construction-related injuries and the need for emergency medical services, a Health and Safety Plan would be prepared and implemented as part of the Proposed Project design (see Section 3.2.7, Hazards and Hazardous Materials).

The Proposed Project would not introduce new residential populations to the area that would require the construction of new, or modification of existing, governmental facilities associated with fire protection or emergency response services. No substantial short-term provisions of additional fire facilities, equipment, or emergency response services would be required for the RTRP, resulting in a less than significant impact.

iii.) Police Protection?

Less than Significant Impact. Law enforcement services in the RTRP area are provided by the RCSD in unincorporated ~~areas of Riverside County~~ and the cities of Jurupa Valley and Norco and the RPD in the City of Riverside. The California Highway Patrol provides additional traffic and law enforcement services along Interstate 15 and State Route 60 in the RTRP area.

Construction of the RTRP may require the use of local law enforcement agencies in unincorporated Riverside County, the cities of Jurupa Valley and ~~in~~ Norco, and the City of Riverside. Much of the RTRP would require the installation of transmission towers structures or subtransmission poles within or adjacent to existing road rights-of-way. Many of the roadways are within heavily trafficked urban areas, particularly in the City of Riverside. In some areas, fiber optic cables for the Proposed Project would also be installed overhead and co-located on the RTRP subtransmission poles or installed underground.

Construction of the Proposed Project may require temporary closure or single-lane closure of roadways during the transport of oversized equipment, stringing of the conducting wires, and installation of overhead or underground fiber optic cables. Road closures and the placement of safety barriers along roadways would be coordinated with the local police and would be scheduled to take place during off-peak commute hours.

Theft of construction equipment and/or vandalism could also occur during the RTRP construction period, requiring a response by local law enforcement. Standard precautionary measures, such as securing equipment when left unattended, would be implemented by construction personnel at the job sites to minimize theft and vandalism. If necessary, RPU and SCE would contract with a local security firm to provide 24-hour security services at the substation sites, marshalling yards, and material staging and laydown areas during Proposed Project construction to minimize the involvement of local law enforcement.

Therefore, Proposed Project use of police services would be associated with temporary

construction-related conditions. No permanent, significant impact on law enforcement services would result.

aiii.) Schools, Parks, and Other Public Facilities?

No Impact. An increase in the demand for public facilities, such as schools, parks, or libraries, is typically correlated with a substantial increase in the size of the local population. The Proposed Project is intended to accommodate, rather than encourage, area growth. As noted in Chapter 1 of this DEIR, Purpose and Need, the Proposed Project was developed in response to the City's electric demand exceeding the capacity of the interconnection with the regional system. Both RPU's and SCE's systems are proposed for expansion under the RTRP in order to meet projected load growth and to provide a second interconnection for system reliability.

RPU and SCE would utilize their existing regional labor forces for construction of the Proposed Project, and workers already residing in the Proposed Project vicinity would commute to the job-site from surrounding communities. It is highly unlikely that workers would uproot their children from the schools they are currently enrolled in and relocate their families into the Proposed Project area during the temporary construction period. Therefore, construction of the Proposed Project would not introduce any permanent sources of housing or new residents to the area, and would not impact the performance objectives of existing schools, parks or other public facilities, necessitating the construction of new, or augmentation of existing, public facilities.

b) ~~Fail to comply with~~ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The wastewater stream resulting from construction of the Proposed Project would include a small volume of wastewater generated by worker use of portable toilet facilities at the Proposed Project staging areas. Based on the size of the anticipated construction workforce (see Chapter 2, Proposed Project Description), the wastewater produced during Proposed Project construction would be minimal. Sanitation waste would be emptied from portable toilets and removed from the site by a licensed sanitation contractor. Wastewater would be disposed of according to RWQCB requirements.

No wastewater would be generated from operation of the Proposed Project.

Proposed Project wastewater would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board, and no impacts would result.

c) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. ~~The EMWD~~ Jurupa Community Services District provides water and wastewater treatment services to all unincorporated areas within Riverside County, ~~which includes the area traversed by the Proposed Project.~~ and the City of Jurupa Valley, including the area traversed by the Proposed Project. The City of Norco Department of Public Works is responsible for the operation, maintenance, production, and distribution of water to residents located within the City. Sewer service is provided by the City of Norco. Wastewater is treated at the Western Riverside County Regional Wastewater Authority plant. RPU and the Riverside Public Works Department

serve as the water and wastewater purveyors in the City of Riverside, which includes the 69 kV subtransmission and new and upgraded substation elements of the RTRP.

Proposed Project construction would require the use of water to suppress fugitive dust generated by excavation at the Proposed Project sites, along transmission and subtransmission rights-of-way, and along access roads. Potable water would be imported to the site by workers for drinking and sanitation purposes. Water used during the construction phases for dust suppression and domestic drinking purposes would not generate wastewater that would entail treatment or disposal.

As previously noted, the use of portable toilet facilities at the Proposed Project staging areas would generate a minimal amount of wastewater that would be maintained by a licensed sanitation contractor, and would not require the construction of new or physical alteration of existing wastewater treatment facilities.

Operation of the Proposed Project would also require a minimal amount of water for emergency procedures (i.e., fire suppression), and for landscaping irrigation around the perimeters of the proposed Wilderness and Wildlife substations. Water utilized for these purposes would be absorbed or would naturally evaporate into the air and would not require treatment or disposal.

Therefore, construction of new or expanded wastewater facilities would not be necessary to serve the Proposed Project, and no impacts associated with such construction would result.

d) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities², the construction of which could cause significant environmental effects?

No Impact. Despite the fact that many development sites associated with the Proposed Project are already impervious surfaces, the RTRP would introduce some new impervious surfaces in the Proposed Project area from construction of the two new substations, transmission and subtransmission structure foundations, and Proposed Project access roads. The compaction of soil and the installation of concrete foundations would be required to support new Proposed Project-related infrastructure, including approximately seven acres for transmission towers and approximately nine acres for the new substations. Approximately 86 acres of land would also be subject to temporary construction disturbance (e.g., temporary access roads, pulling/tensioning sites) and would be returned to preconstruction conditions after the completion of Proposed Project construction. Measures provided in the Proposed Project SWPPP would address proper management of stormwater runoff flows and would be strictly followed by crews during construction. With implementation of the Proposed Project SWPPP, the net increase in impervious surfaces resulting from the RTRP would not substantially alter the volume or location of additional stormwater runoff that enters the drainage system. Therefore, under the Proposed Project, the construction of new, or expansion of existing, stormwater drainage facilities in the Proposed Project area are not planned.

~~e) Exceed existing water supplies?~~

e) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The primary use of water during construction of the Proposed Project would be for dust suppression on access roads and active ground disturbance sites. The quantity of water required to manage fugitive dust typically depends on site-specific conditions such as the local climate, and the quantity, length, surface conditions, and amount of soil cover on Proposed Project access roads as well as other excavated areas. The water that would be required for construction would be trucked in from off-site. A small amount of water would also be required to be on-site for fire suppression. The work crew would bring in drinking water from off-site. Water used during the construction period would be supplied by a local vendor or agency and would not require local water providers to obtain additional water entitlements. The source of the water has not been identified. The amount of water required for construction of the Proposed Project would be negligible, and would therefore not require new or expanded water supply resources or entitlements.

During operation of the Proposed Project substations, a minimal amount of water would also be necessary for emergency procedures (i.e., fire suppression), and to irrigate landscaped areas around the perimeters of the new Wilderness and Wildlife substations. The monthly quantity of water required for these uses would depend on the time of year and the local weather conditions, but would be relatively small compared to water resources available in the local permitted facilities. RPU and SCE would implement EPE UTIL-2 to minimize the quantity of water required for Proposed Project landscaping purposes.

Consequently, Proposed Project water needs would not surpass existing water service capacities, and would not require new or expanded water facilities or entitlements. No impacts associated with such construction would result.

f) Exceed existing wastewater capacity?

No Impact. Proposed Project construction would require the use of water to suppress dust generated during ground disturbing activities. Disposal would not be required because the amount of water needed for dust suppression would be minimal and would evaporate into the surrounding air or percolate into the ground.

As previously mentioned, construction of the Proposed Project would also generate a nominal amount of wastewater resulting from the temporary use of portable toilet facilities at the Proposed Project staging areas. The wastewater produced during Proposed Project construction would not significantly affect the service capacities of local wastewater treatment facilities. Sanitation waste would be removed from the site by a licensed sanitation contractor and treated at the Riverside Water Quality Control Plant, and no other wastewater would result from Proposed Project construction or operation. Therefore, the Proposed Project's wastewater treatment demands would not hinder the local wastewater treatment provider's ability to serve the RTRP in addition to the provider's existing commitments.

g) ~~Exceed existing~~ Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant Impact. Construction of the Proposed Project would generate solid waste, mostly in the form of construction debris. The RCWMD regulates the collection, management, transportation, and disposal of solid waste at landfills which serve the Proposed Project area, including the Badlands, El Sobrante, and Lamb Canyon landfills. RPU and SCE would implement EPE UTIL-01 to minimize the potential for impacts to occur associated with the disposal of construction waste material, and to assist the local jurisdictions in meeting their solid waste diversion goals and AB 939 standards. Excess soil from tower foundation excavation would be backfilled in the same area, where feasible. The remaining nonhazardous construction debris would be disposed of as follows: municipal solid waste and waste consisting of large amounts of non-recyclable organic material (e.g., soil, vegetative material, cardboard boxes) would be transported to sanitary landfill facilities, and non-recyclable inert solid waste (e.g., asphalt, concrete fragments, and scrap metal) would be hauled to unclassified landfill facilities. Hazardous waste would be picked up and transported by a licensed hauler to a disposal facility permitted to accept such waste. Solid waste resulting from construction of the RTRP would represent only a small fraction of the total landfill capacity available in the region.

Operation and maintenance of the Proposed Project's substations would also generate a very limited amount of solid waste, primarily related to packing materials associated with replacement parts. Excess solid waste materials would be removed from the substation sites and recycled, reused, or disposed at an approved landfill.

Since area landfills would have sufficient capacity to accommodate the Proposed Project's solid waste disposal needs, a less than significant impact would result.

h) ~~Conflict~~ Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Solid waste generated by the Proposed Project would consist of construction debris, including concrete fragments, asphalt, scrap metal, soil, and some vegetative material. Treated wood poles associated with the 69 kV subtransmission lines requiring removal or replacement under the Proposed Project would be disposed of as waste by an approved RPU vendor pursuant to RPU waste management and agency requirements. Other construction waste that could not be diverted would be picked-up and transported to a landfill in the region permitted to accept the waste.

Since Proposed Project-generated construction waste would represent only a small fraction of the total landfill capacity available in the region, landfills in the area would have sufficient capacity to accept Proposed Project waste.

Riverside County and the City of Riverside have each adopted an SRRE that addresses solid waste diversion goals, recycling programs, and practical methods for achieving solid waste diversion objectives in compliance with AB 939 standards. As indicated by Table 3.2.13-5 (above), local jurisdictions within the Proposed Project area met or surpassed the minimum requirements of AB 939 between 2004 and 2006. RPU and SCE would implement EPE UTIL-01 to ensure that the maximum amount of Proposed Project construction waste materials would be diverted from disposal at a landfill.

Therefore, the Proposed Project would comply with applicable statutes and standards related to solid waste; no impact would result.

i) Cause utility system disruptions or cause a co-location accident through the crossing or shared location with another utility line during construction of the Project?

No Impact. To identify and ensure avoidance of a co-location accident with existing above- and underground utilities, standard procedures would be employed by SCE and RPU prior to Proposed Project construction. These procedures would generally follow a two step process:

1) At the completion of full preliminary design, plans would be sent to all other utilities to inform them of the Project's design to solicit input and recommendations. RPU maintains a list of approximately 20 utilities that are notified as standard practice on all RPU projects. Utilities would be requested to post on project plans and return, or provide as-built prints of their facilities that may be affected by the Proposed Project. This information would be transferred to final Proposed Project plans and the design would be modified to avoid any potential co-location accidents with existing utilities.

2) RPU and SCE would then notify the Underground Service Alert at least two working days prior to any Proposed Project excavation activities, in accordance with the requirements of California Government Code Section 4216-4216.9, "Protection of Underground Infrastructure." This would facilitate the identification of existing underground utilities within 1,000 feet of the RTRP. Following notification by the Underground Service Alert, local utilities would have two days to mark the construction area, identifying the locations of their underground facilities in the field. Surveys and manual probing would also be conducted by RPU and SCE along Proposed Project alignments and sites prior to the use of powered-equipment drilling and excavation activities. Probing activities would help to determine the exact placement of pole and tower foundations along the alignment, eliminating potential interference with existing utility systems.

Significant Unavoidable Impacts

The Proposed Project will not result in any significant unavoidable impacts to public services or utilities systems.

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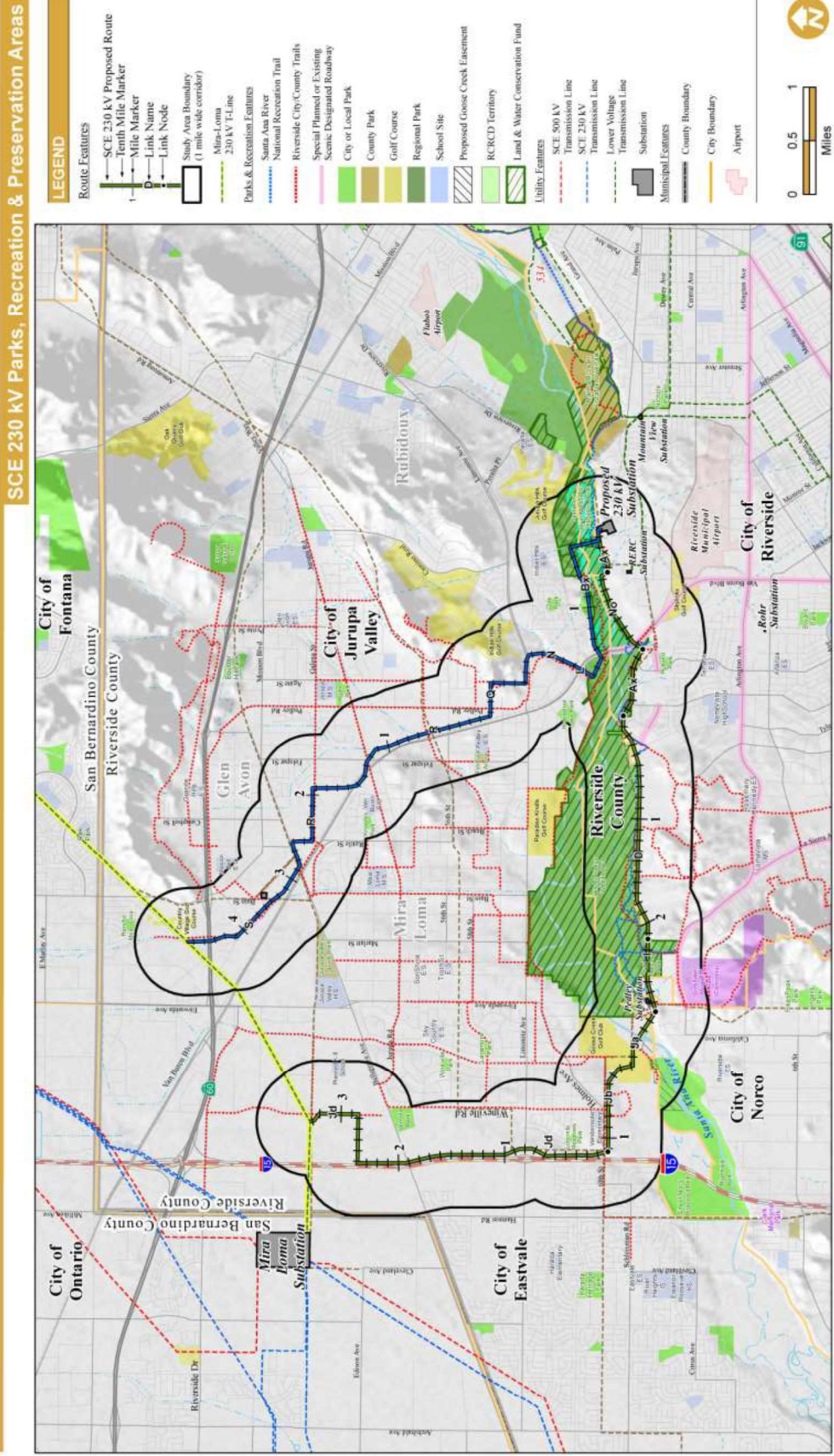
3.2.14 RECREATION

This section describes the environmental setting, regulatory setting, and potential impacts associated with the construction and operation of the Proposed Project with respect to recreation.

Environmental Setting

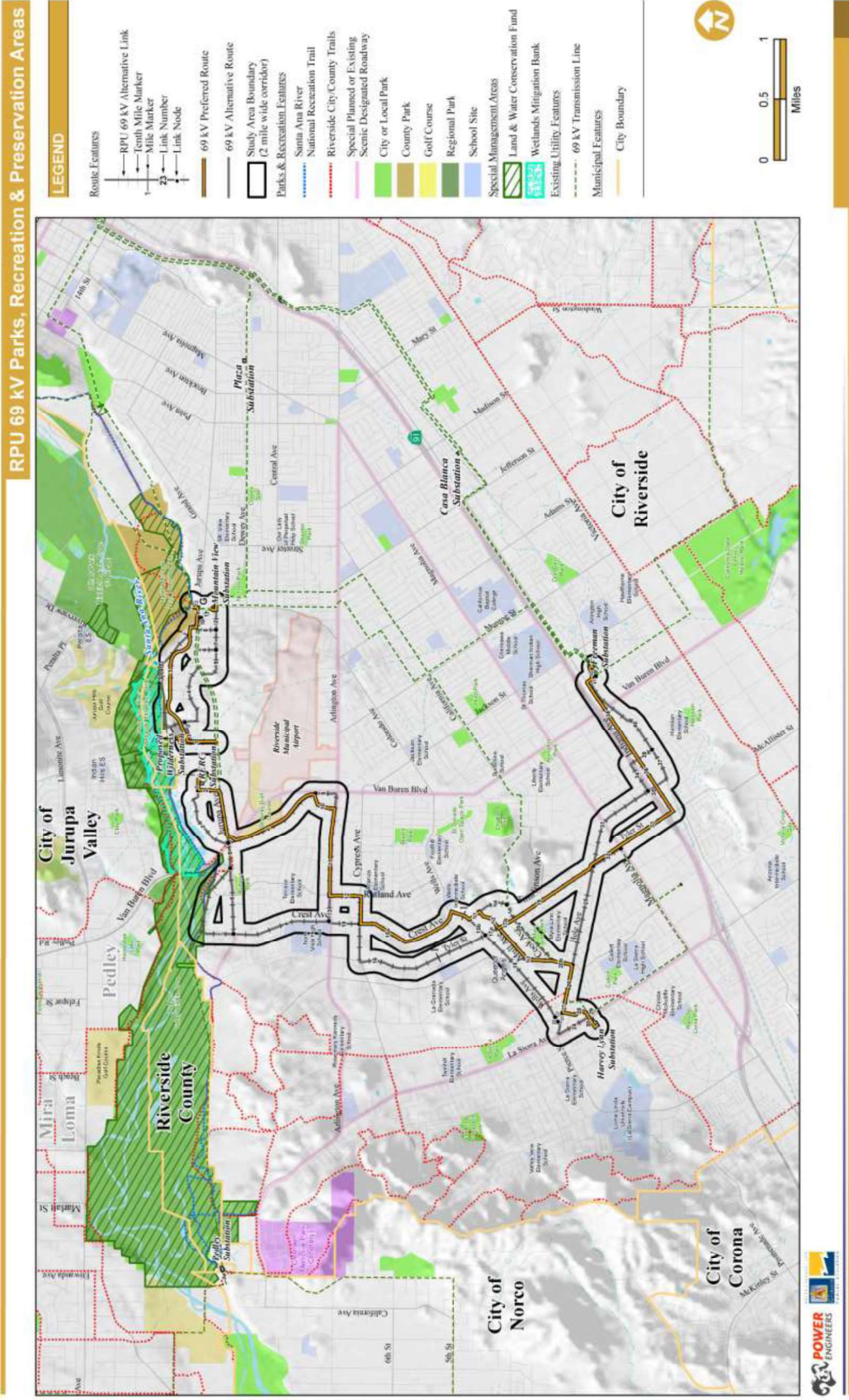
The Proposed Project would be located in the Inland Empire in northwestern Riverside County. Riverside County incorporates a wide range of open space, parks, and recreational areas. The parks and recreational areas within the County also serve residents and visitors in the western portion of the County, as well as the desert, mountain, and Colorado River regions. The City of Riverside and City of Norco also maintain parks and recreational facilities within their municipal boundaries. In addition, private recreational facilities are found primarily in planned communities and apartment complexes. Figures 3.2.14-1 and 3.2.14-2 show the location of parks and recreation facilities in the study area.

FIGURE 3.2.14-1. SCE 230 KV PARKS, RECREATION AND PRESERVATION AREAS (REVISED)



RIVERSIDE TRANSMISSION RELIABILITY PROJECT

FIGURE 3.2.14-2. RPU 69 KV PARKS, RECREATION AND PRESERVATION AREAS (REVISED)



RIVERSIDE TRANSMISSION RELIABILITY PROJECT



Riverside County

Riverside County maintains 35 Regional Parks, encompassing roughly 23,317 acres. Open space and recreation areas offer residents and visitors myriad recreational opportunities while providing a valuable buffer between urbanized areas. The protection and preservation of open space areas from urbanization is an increasingly important issue for the County. The Riverside County Regional Park and Open Space District manages and operates more than 44,000 acres, which includes 40 parks, reserves, historic or archaeological sites, and 90 miles of regional trails. The district was created in 1990 and is an independent agency governed by the Board of Supervisors.

Riverside County trails are designed to serve several different groups. They are intended for the use of equestrians, hikers, joggers, and non-motorized bikers, as well as the casual walker. The Santa Ana River Trail is part of a planned regional trail extending across multiple jurisdictions from the Pacific Ocean in Orange County to the San Bernardino Mountains in San Bernardino County. Some communities have trails which are built and maintained by another entity, such as a homeowners' association, a community service area, or a local park and recreation district.

Riverside County has four types of recreational trails:

Regional Trails - These are the main trails within the County, generally maintained and operated by the Riverside County Parks and Open Space District. They are designed to eventually provide linkages between areas which could be quite distant from each other. They are also designed to connect with state and federal trails as well as trails within other jurisdictions.

Community Trails - These trails are designed to link areas of a community to the regional trail system and to link areas of a community with each other. Such trails are typically maintained and operated by a local parks and recreation district.

Historic Trails - These are designated historic routes that recognize the history of Riverside. The Historic Trails designated on the bikeways and Trails Plan, Figure C-7, include the Juan Bautista de Anza National Historic Trail. The Historic Trails routes' designations are graphical representations of the general location of these historic routes and do not necessarily represent a planned Regional or Community Trail. In some cases, the trails have more detailed planning documents which describe interpretive routes for autos and/or non-motorized modes of Transportation. There generally are Regional or Community Trail designations that either follow or parallel these routes, thus providing opportunities to recognize the historic significance of these routes and affording the prospect of developing interpretive centers and signage.

The fourth type (National Forest and BLM Trails) is not applicable to the Proposed Project area because no such forests or trails exist in the Project area.

~~The Jurupa Area Recreation and Park District (JARPD) provides parks (neighborhood and community) and recreational facilities in the vicinity of the City of Jurupa Valley. The JARPD provides activities and amenities from its 18 facilities, including active sports parks, parks, its community centers, community pool, and gymnasiums. Funding sources for the JARPD include property taxes and assessments, Quimby Fees, and recreational program fees.~~

There are four trail classifications in the Riverside County General Plan Circulation Element: Class I Bike Paths, which are off-road, paved paths; Class I Bike Paths/Regional Trails (Combination Trails), which include both paved and unpaved areas to accommodate bicycle, equestrian, and pedestrian usage in a single facility; Class II Bike Lanes, which are on-road, signed and striped bicycle lanes; and Class III Bike Routes, which are on-road, signed bicycle routes with no separate lanes. Bicycling occurs throughout the County, but is more concentrated in the cities, and is more recreational than commute-oriented.

In addition, and according to the Riverside County 2008 General Plan Update, General Plan Advisory Committee, County Staff has recommended proposed revisions to the Circulation Element to update the Trails and Bikeway System.

The Jurupa Area Recreation and Park District (JARPD) was formed in 1984 to provide parks and recreation facilities and programs to residents of the Jurupa Valley area. The district provides activities and amenities from its 18 facilities including active sports parks, parks, its community centers and community pool and gymnasiums. Funding sources for the District include property taxes and assessments, Quimby Fees and recreational program fees.

City of Riverside

The City of Riverside owns and maintains 52 public parks and additional open space areas comprising more than 2,300 acres. Joint-use agreements are established with non-city-owned sports complexes, golf courses, and hobbyist parks so that public use of the site(s) is allowed in exchange for maintenance service performed by the City. The City of Riverside park system categorizes parks as local, regional/reserve parks, or signature parks, based on the size, location, and amenities provided.

According to the Park and Recreation Master Plan, the City currently maintains trails for equestrian, off-road biking, hiking, and other pedestrian-oriented uses. The intent of the multi-purpose recreational trails is to connect the major open space and recreational sites that surround the City, including the Santa Ana River and La Sierra/Norco Hills, to encircle the City. Trails provide connections to open space areas, as well as providing recreational opportunities. Existing trails in the City of Riverside include primary City trails along the Santa Ana River along the northwestern part of the City.

The City of Riverside has planned and constructed routes for bicycle, pedestrian, and equestrian travel and incorporated these plans into the Parks and Recreation Element of the General Plan 2025. These routes generally follow streets in the developed portions of the General Plan 2025 area; the network also includes recreational routes in parks and other open space areas.

The City of Riverside also has joint-use agreements with Alford Unified School District and Riverside Unified School District allowing resident use of district-owned and/or -operated ball fields, tennis courts, and swimming pools.

The City of Riverside Bicycle Master Plan designates a series of Class I and Class II bicycle facilities throughout the City.

City of Norco

The City of Norco Parks and Community Services Department owns and maintain parks, open space, trails, and community facilities for public use in the City of Norco. The City of Norco also contains over 95 miles of pedestrian/equestrian trails. Currently, there are few bicycle-related improvements or trails in the Proposed Project area. The City proposes to connect the Santa Ana River Trail, which runs through the City of Norco and south of the Santa Ana River, to connect with the Santa Ana River Trail system.

Private

Private recreational facilities are found primarily in planned communities and apartment complexes. These facilities usually include tennis/basketball courts, pools/spas, and/or playgrounds. There are also several commercial recreational facilities within Riverside County. Commercial recreational facilities within the study corridors/vicinity include public golf courses (Goose Creek Golf Club, Paradise Knolls Golf Course, Indian Hills Golf Club, Van Buren Golf Center) and equestrian centers. The Corona Remote Control Club flying field (La Sierra/Arlington Field) is also situated south of the Hidden Valley Wildlife Area. The Club focuses on the sport of radio control modeling.

Public parks, recreation, and preservation facilities/areas within the Proposed Project area are presented in Table 3.2.14-1 below.

TABLE 3.2.14-1. PUBLIC PARKS, RECREATION, AND PRESERVATION FACILITIES/AREAS WITHIN THE PROJECT AREA

Existing Facility/Area	Type	Location	Amenities	Acreage	Jurisdiction
Hidden Valley Wildlife Area*	Regional Nature and Historic Center	11401 Arlington Avenue, Riverside	Open space, interpretive center, and hiking and equestrian trails	1,500	Riverside County Regional Park & Open-Space District*** [Note: The California Department of Fish and Game owns a small portion of the river channel within the Hidden Valley Wildlife Area]
Martha McLean-Anza Narrows Park	Regional	5759 Jurupa Avenue, Riverside	Open space, picnic facilities, playground, hiking, bicycle and equestrian trails	40	Riverside County Regional Park & Open-Space District***
Santa Ana River Wetlands Mitigation Bank**	---	---	---	---	Riverside County Regional Park & Open-Space District***
Public/Quasi-Public Lands***	---	---	Open space	---	Western Riverside County Regional Conservation Authority
Limonite Meadows Park	Community	6596 Pat's Ranch Road, Mira Loma	Playground, picnic tables	3.49	Jurupa Area Recreation and Park District
Horseshoe Lake Park	Community	8788 Lakeview Avenue, Riverside	Undeveloped	13.73	Jurupa Area Recreation and Park District

Existing Facility/Area	Type	Location	Amenities	Acreage	Jurisdiction
Rutland Park	Neighborhood	7000 Rutland Avenue, Riverside	Basketball half courts, sand lot volleyball courts, horseshoe pits, playground, picnic tables, barbeques, and covered picnic area	8.63	City of Riverside Park, Recreation & Community Services
Hole Lake Site	Special Use	---	Undeveloped (plans for trailhead/equestrian trailer parking lot)	61.0	City of Riverside Park, Recreation & Community Services
Savi Ranch	Special Use	---	Undeveloped	37.62	City of Riverside Park, Recreation & Community Services
River Trails Park	---	---	---	---	City of Norco Parks, Recreation & Community Services

*Land & Water Conservation Fund Grant Site (as of 3/30/2006).

**A Mitigation Bank is an area with resource value, where the owner records a conservation easement on the property and sells mitigation credits prior to the execution of a mitigation banking agreement with the Wildlife Agencies. Mitigation areas are permanently conserved and managed for natural resource values. Mitigation areas are intended to protect resources in large, connected areas in advance of the need for mitigation and are therefore considered a valuable tool for assembling the MSHCP Conservation Area.

***The Riverside County Regional Park and Open Space District provides countywide or regional facilities that are generally large facilities and are designed to be used by residents of the entire region. County parks permit biking, hiking, equestrian use, and camping. There are no camping facilities at Hidden Valley Wildlife Area. Management of Hidden Valley Wildlife Area emphasizes wildlife habitat conservation and enhancement (the City of Riverside's Regional Water Quality Control Plant wetland ponds were established in this area). There are efforts underway to improve wildlife habitat value in the riparian areas by removing giant reed.

****A subset of MSHCP Conservation Area lands totaling approximately 347,000 acres of lands known to be in public/private ownership and expected to be managed for open space value and/or in a manner that contributes to the conservation of Covered Species (including lands contained in existing reserves).

Table 3.2.14-2 presents the existing public (adopted) trails traversed and adjacent to the Proposed Project.

TABLE 3.2.14-2. EXISTING PUBLIC (ADOPTED) TRAILS TRAVERSED AND ADJACENT TO THE PROPOSED PROJECT

Component	Type	General Location	Orientation	General Plan
230 kV transmission line (I-15)	Class I Bike Path/Regional Trail (Santa Ana River Trail*)	Wildlife/Wilderness Substation Sites to Arlington Avenue – City of Riverside	Adjacent	Jurupa Area
230 kV transmission line (I-15)	Class I Bike Path/Regional Trail	Arlington Avenue – City of Riverside	Traversed	Jurupa Area
230 kV transmission line (I-15)	Class I Bike Path/Regional Trail (Santa Ana River Trail*)	North of North Drive – City of Norco	Traversed	Jurupa Area
230 kV transmission line (I-15)	Regional Trail	Santa Ana River area - (north of the City of Norco)	Traversed	Jurupa Area
230 kV transmission line (I-15)	Community Trail	Lucretia Avenue (south of 68 th Street)	Traversed	Jurupa Area
230 kV transmission line (I-15)	Community Trail	Lucretia Avenue (between Dana Avenue and Wineville Avenue)	Adjacent	Jurupa Area
230 kV transmission line (I-15)	Regional Trail	Wineville Avenue (at 68 th Street)	Traversed	Jurupa Area

Component	Type	General Location	Orientation	General Plan
230 kV transmission line (I-15)	Community Trail	68 th Street (between Wineville Avenue and I-15)	Adjacent	Eastvale Area
230 kV transmission line (I-15)	Class I Bike Path/Regional Trail	Bellegrave Avenue	Traversed	Jurupa Area
230 kV transmission line (I-15)	Community Trail	Wineville Avenue (Landon Drive to Galena Street)	Adjacent	Jurupa Area
230 kV transmission line (I-15)	Primary – Equestrian, Trail, Bike and Pedestrian (Santa Ana River Trail*)	Hole Lake Site	Traversed	City of Riverside 2025
230 kV transmission line (I-15)	Primary – Equestrian, Trail, Bike and Pedestrian (Santa Ana River Trail*)	Hole Lake Site (west to Hidden Valley Wildlife Area)	Adjacent	City of Riverside 2025
230 kV transmission line (I-15)	Secondary – Equestrian, Trail, Bike and Pedestrian (4 connectors)	Hidden Valley Wildlife Area	Traversed	City of Riverside 2025
69 kV Subtransmission Lines – RERC to Harvey Lynn Substation	Secondary – Equestrian, Trail, Bike and Pedestrian	Mitchell Avenue (at Hole Avenue)	Traversed	City of Riverside 2025

* Riverside County Regional Park and Open Space District officially recognizes only portions of the Santa Ana River Trail as an existing off-road trail. The trail has two trailhead parking areas with restrooms, picnic facilities, and visitor parking to the Hidden Valley Nature Center to accommodate increased visitor use. The Santa Ana River Trail is a Class 1 bicycle path in the City of Riverside area which parallels the Santa Ana River channel. This trail is designated as a City of Riverside Primary trail, allowing pedestrian, bicycle, and equestrian uses, although it is mainly used as a bike path.

230 kV Transmission Line

The proposed 230 kV transmission line would traverse the City of Riverside's undeveloped Hole Lake and Savi Ranch park sites. The Hole Lake site includes a proposed trail staging area (Jurupa Trailhead to the Santa Ana River Trail) and equestrian trailer and trailhead parking lots. Portions of the Hidden Valley Wildlife Area and the Goose Creek Golf Club are also traversed by the 230 kV transmission line. Trails potentially affected by the 230 kV transmission line are addressed in Table 3.2.14-2.

69 kV Subtransmission Lines (Wilderness Substation to Mountain View Substation, Wilderness/Wildlife Substation to Jurupa Avenue, RERC to Harvey Lynn Substation and Freeman Substation)

The proposed RERC to Harvey Lynn Substation subtransmission line crosses the Mitchell Avenue trail identified in the City General Plan 2025, a Secondary – Equestrian, Trail, Bike and Pedestrian trail.

Wildlife/Wilderness 230 kV Substations

The proposed Wildlife and Wilderness Substations are located on City of Riverside-owned land. The land is not being used for recreational purposes. The Santa Ana River Trail is situated north of the site.

69 kV Substation Upgrades (RERC, Mountain View, Harvey Lynn, Freeman)

The existing RERC, Mountain View, Harvey Lynn, and Freeman substations are located on land utilized for industrial purposes.

Fiber Optic Telecommunications System

The fiber optic cable would be installed on existing overhead distribution poles, on new 230 kV transmission structures, or in new underground conduit. New underground fiber cable ROWs along the existing distribution pole line would be required for installation of the underground fiber optic cable.

Regulatory Setting

Federal

Land and Water Conservation Fund Act, 16 U.S.C., Section 460 1-8

The Land and Water Conservation Fund (LWCF) is a conservation program established by Congress in 1964 to create parks and open spaces; to protect wilderness, wetlands and refuges; to preserve wildlife; and to enhance recreational opportunities. The National Park Service's (NPS) Pacific West Regional Office administers the LWCF program for California and other western states. Property acquired or developed with LWCF assistance is to be retained and used for public outdoor recreation.

Conversions of properties under Section 6(f)(3) of the LWCF Act occur when a project or use eliminates or diminishes the public outdoor recreation of protected lands. According to 36 CFR 59.2 (*Prerequisites for conversion approval*), requests for permission to convert LWCF assisted properties in whole or in part to other than public outdoor recreation uses must be submitted by the State Liaison Officer to the NPS Regional Director in writing. NPS will consider conversion requests if the following prerequisites have been met, including:

- a) All practical alternatives have been evaluated;
- b) The fair market value of the property has been established and a substitute property is of at least of fair market value as established by an appraisal conducted in accordance with uniform Federal appraisal standards;
- c) The property proposed for replacement is of reasonably equivalent usefulness and location as that being converted;
- d) The property proposed for substitution meets the eligibility requirements for LWCF assisted acquisition;
- e) In the case of assisted sites which are partially rather than wholly converted, the impact of the converted portion on the remainder shall be considered.
- f) All necessary coordination with other Federal agencies has been satisfactorily accomplished
- g) The guidelines for environmental evaluation have been satisfactorily completed and considered by NPS during its review of the proposed 6(f)(3) action;
- h) State intergovernmental clearinghouse review procedures have been adhered to if the proposed conversion and substitution constitute significant changes to the original Land and Water Conservation Fund project.
- i) The proposed conversion and substitution are in accord with the Statewide Comprehensive Outdoor Recreation Plan (SCORP) and/or equivalent recreation plans.

The authority to make a final determination as to whether a potential Section 6(f) conflict exists rests with the NPS.

Land that is converted must be replaced with land of equal value, usefulness, and location. Repayment of the amount of LWCF assistance in lieu of replacement property will not be allowed, nor will construction of replacement facilities.

The Proposed Project (230 kV transmission line) traverses lands (12.0 acres) which have received federal funding through the LWCF program. These lands include the Hidden Valley Wildlife Area (230 kV transmission line), and Santa Ana River Wetlands Mitigation Bank. Placement of 230 kV transmission line components on these lands would constitute a conflict with the LWCF, according to the California State Parks, Office of Grants and Local Services, which is the Agency that oversees the LWCF program in California.

State

There are no State regulations applicable to the Proposed Project relative to recreation.

Regional And Local

Riverside County General Plan

The Riverside County General Plan Multipurpose Open Space Element provides regulation for parks and recreation land use and oversight. In addition, the Land Use Element provides information that relates directly to preserving and enhancing open space through land use-related methods. The Land Use Element includes restrictions on development of open space, focusing urban growth, providing recreational and open space opportunities within the built environment, and achieving a balance between urban uses and open space/habitat.

The following Riverside County General Plan policies that relate to recreation may be applicable to the Proposed Project:

Policy OS 20.2: Prevent unnecessary extension of public facilities, services, and utilities, for urban uses, into Open-Space-Conservation designated areas.

Policy OS 20.3: Discourage the absorption of dedicated park lands by non-recreational uses, public or private. Where absorption is unavoidable, replace park lands that are absorbed by other uses with similar or improved facilities and programs.

Policy OS 20.6: Require new development to provide implementation strategies for the funding of both active and passive parks and recreational sites.

Policy LU 19.5: Require that new development meet the parkland requirements as established in the Quimby Act and County enabling ordinances.

Policy C 16.4: Identify all existing rights-of-way which have been obtained for trail purposes through the land development process.

City of Riverside General Plan 2025

Arroyos and Biological Resources

Policy OS-7.1: Focus river improvements on the following areas: Fairmount Park and Mt. Rubidoux, Tequesquite Avenue and the Old Landfill, Martha McLean Park, Van Buren Bridge

and the Hidden Valley Wildlife Area.

Policy OS-7.3: Preserve and expand open space along the Santa Ana River to protect water quality, riparian habit and recreational uses.

Policy OS-7.4: Interconnect the Santa Ana River Trail with other parks, cultural and community centers throughout the City through trails and linkages to encourage more pedestrian and bicycle usage and reduce automobile traffic.

Park and Recreation Master Plan

Policy PR-2.6: Provide greater amenities at access points and trail hubs, including identification and directional signs, marked parking stalls, water facilities for equestrians, cyclists and pedestrians, hitching posts, shade and trash receptacles. Additional amenities at trail hubs could include picnic tables and rest rooms.

Santa Ana River

Policy LU-2.1: Cooperate and collaborate with Riverside County in developing recreational opportunities along the Santa Ana River.

Policy LU-2.2: Utilize the 2004 Santa Ana River Task Force Report in planning, programming and implementing environmental and recreational improvements to the River area.

Walking and Biking

Policy CCM-10.1: Ensure the provision of bicycle facilities consistent with the Bicycle Master Plan.

Policy CCM-10.2: Incorporate bicycle and pedestrian trails and bicycle racks in future development projects.

Policy CCM-10.7: Maintain an extensive trails network that supports bicycles, pedestrians and horses and is linked to the trails systems of adjacent jurisdictions.

City of Riverside Park and Recreation Master Plan

The City's Park and Recreation Master Plan was written to address the adequacy of the City's park and recreation facilities and to determine the future needs and opportunities in the City (City of Riverside 2003). It also addresses the Trails Master Plan and makes recommendations to the trails system as it pertains to park, recreation, and open space connections. The City has laid out policies in the Master Plan that are intended to provide a framework of support and guidance. Policies and implementation strategies for the Master Plan include:

- parklands and park facilities;
- trails and parkways;
- open space;
- natural resources management;
- maintenance;
- community participation and stewardship; and
- funding and improvements.

Impact Assessment

Significance Threshold Criteria

For the purposes of the following evaluation, the Proposed Project would cause a significant impact on recreation if it would:

- a) 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; or
- b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment; or
- c) Disrupt recreational activities, which would adversely affect the recreational value of existing facilities.

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.14-3 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to recreation. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.14-3. ENVIRONMENTAL PROTECTION ELEMENTS—RECREATION

Environmental Protection Element	Description
REC-01	Recreational Areas. In the event short-term restrictions on recreation use at parks, or on existing bike lanes, bike paths, or trails are necessary during project construction, the public would be notified in coordination with the agencies that manage the impacted resource.
REC-02	Closure notices. When temporary park or trail closures are necessary, onsite notices would be posted prior to the closure.
REC-03	Revegetation. Any park areas temporarily affected by project construction would be revegetated and returned to preconstruction conditions.

Mitigation Measures

Specific mitigation measures (see Table 3.2.14-4) would be applied for impacts related to recreation.

TABLE 3.2.14-4. MITIGATION MEASURES - RECREATION

Mitigation Measure	Description
MM REC-01	Recreation Area Closures. When temporary short-term closures to recreational areas are necessary for construction activities, closures would be coordinated with recreational facility owners. Schedule construction activities to avoid heavy recreational use periods (e.g., holidays or tournaments). Post notices prior to the closure.

Mitigation Measure	Description
MM REC-02	Conversion of Land and Water Conservation Fund (LWCF) Property [Section 6(f)]. Where a conversion of LWCF property would occur, coordinate with the National Park Service, California State Parks- Office of Grants and Local Services, and the grantee to replace the property used by the Proposed Project in size, value and function through a conversion process.

Environmental Impacts

Parks, recreation, and preservation areas may be particularly susceptible to disturbances from noise, traffic, dust, or other environmental impacts. Activities occurring during the construction or operation of a project in the vicinity of recreation areas also have the potential to restrict access or preclude use of the recreation facilities. In general, recreational resources (including parks, open space, playgrounds, and playfields), recreational activities (such as bicycling or hiking), and recreationists are considered to be sensitive receptors for the purposes of the DEIR.

Proposed Project components would be sited on or adjacent to recreational facilities, parks, open space and trails. Parks, recreation, and preservation areas traversed by the proposed 230 kV transmission line are identified in the Land Use Technical Report included in the Technical Appendices to this DEIR. With the exception of the proposed RERC to Harvey Lynn Substation subtransmission line, parks, recreation, and preservation areas were not identified as being traversed by the 69 kV subtransmission lines. Descriptions of parks, recreation, and preservation areas within the Proposed Project area are provided in Table 3.2.14-2.

The impact analysis considers the potential adverse impacts on recreational services associated with the construction, operation, and maintenance of the Proposed Project.

a) 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.

No Impact. Increases in demand for recreational facilities are typically associated with substantial increases in population. The Proposed Project would not contain a residential component that would result in increased usage of existing recreational facilities once operational. The construction work force would consist primarily of local workers; therefore, construction activities associated with the Proposed Project would not increase the use of parks or recreational facilities, nor would the Proposed Project result in the need to construct or expand recreational facilities. Therefore, implementation of the Proposed Project would not result in a substantial increase in demand for recreational facilities such that substantial physical deterioration of the existing facilities would occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

No Impact. The Proposed Project does not include any plans for the addition of any recreational facilities, nor would it require the construction or expansion of recreational facilities. Therefore, the Proposed Project would not result in any adverse physical effects on the environment from construction or expansion of additional recreational facilities.

c) Disrupt recreational activities, which would adversely affect the recreational value of existing facilities.

Construction of the Proposed Project (230 kV transmission line) would temporarily disrupt operations of the Goose Creek Golf Club.

Less than Significant Impact With Mitigation Incorporation. Construction of the proposed 230 kV transmission line traverses the Goose Creek Golf Club. Construction activities associated with the 230 kV transmission line would require a steel lattice structure on the golf course. Construction activities would require the temporary closure of some holes and/or a portion of the driving range.

Construction activities would cause temporary interruptions to the operations of the golf course, which would impact the golfers utilizing the course. However, implementation of mitigation measure MM REC-01 would coordinate course hole and/or driving range closures with the manager/owner of the golf course, would schedule construction activities to avoid heavy use periods (e.g., holidays or tournaments), and would post notice of the closure at the golf course prior to the closure. As such, impacts resulting in disruptions to the operations of the Goose Creek Golf Club would be short-term and temporary, resulting in less than significant impacts.

Construction or operation of the Proposed Project would disrupt recreational activities such that recreational values would be reduced.

Construction and operational activities could potentially disrupt access to established recreational facilities/areas or otherwise disturb activities in such areas. Impacts associated with construction activities would be temporary in nature and occur for short periods in any one location. Prior notification would be made with facility managers in scheduling specific construction activities so that they do not disrupt recreational use during peak use times or occurrences, and construction notices would be posted near the recreational facility prior to construction to allow for adequate noticing to recreational users prior to construction activities commencing (MM Rec-01) Impacts associated with operation would continue for the lifetime of the Proposed Project and are therefore considered to be permanent or recurring impacts. Once constructed, the Proposed Project would be a passive feature that, through careful siting of structure (poles, LSTs and TSPs) locations, would not disrupt recreational activities to the point of decreasing recreational value. It would not create on-going disruptive activities. Operational activities associated with the Proposed Project would consist of occasional line patrols. These would be scheduled with recreational facility managers and would be infrequent. Impacts would be less than significant.

Less Than Significant Impact With Mitigation Incorporation. The Proposed Project (230 kV transmission line ROW) would span portions (~~12.0~~13.5 acres) of the Hidden Valley Wildlife Area and Santa Ana River Wetlands Mitigation Bank. Spanning or placement of this Proposed Project component on these lands would constitute a “conversion” under the LWCF, according to the California State Parks, Office of Grants and Local Services, which is the Agency that oversees the LWCF program in California. Conversions are evaluated for approval by the NPS in conjunction with California State Parks. As noted in the “Regulatory Setting” discussion for this resource, there are numerous prerequisites that must occur before the NPS agrees with the conversion of the resource. As such, with the implementation of mitigation measure MM REC-02 the Proposed Project would reduce the impact of converting LWCF land to less than

significant.

Replacement land will be determined when the conversion process is initiated. Replacement property need not necessarily be directly adjacent to or close by the converted site.

According to the Land and Water Conservation Fund State Assistance Program Manual, October 1, 2008, the State may allow underground utility easements within a Section 6(f)(3) area as long as the easement site is restored to its pre-existing condition to ensure the continuation of public outdoor recreational use of the easement area within 12 months after the ground within the easement area is disturbed. In areas where impacts are potentially significant, immitigable, and unavoidable, impacts could be reduced to less than significant if the transmission line of the Proposed Project was undergrounded. In those limited areas where impacts are potentially significant, immitigable, and unavoidable, some impacts could be reduced to less than significant if the Project's lines were undergrounded. However, as discussed in detail in Chapter 6 (Alternatives), undergrounding even limited sections of the ~~Project~~Project's 230 kV transmission line as a means of potential mitigation is infeasible. While undergrounding may reduce some of the Project's potentially significant impacts, the overall environmental impacts caused by undergrounding would be greater and, as such, it is not considered a feasible mitigation measure for the Proposed Project. Specifically, undergrounding requires substantially more excavation than overhead structures. This level of ground disturbance would require several times more heavy equipment than overhead construction. Complete ground disturbance along the line (or sections) would make it difficult or impossible to avoid sensitive areas, such as wetlands and stream crossings—particularly in the area where the Project crosses the Santa Ana River. In addition, vegetation restoration options are much more limited for undergrounding as opposed to the currently proposed Project. This is because vegetation growing over an underground line would need to support heat dissipation and prevent root intrusion into the lines. Further, during future repairs of an underground line, entire sections between vaults, approximately 2,000 feet apart, may require re-excavation. Undergrounded portions within the Santa Ana River corridor would be prone to washouts during a flood event, requiring re-installation. These considerations equate to increased environmental impacts to air quality, agricultural resources, biological resources, cultural resources, and geologic and water resources, as impacts would be inflicted again and again during any future repairs or wash-out incidents. Further, outages would be prolonged on the underground line, due to poor accessibility and time required in identifying the failure location, excavating the underground line, and correcting any outage. ~~Also~~In addition to the reasons discussed above, economic considerations associated with undergrounding show that undergrounding is infeasible as a mitigation measure, even for more limited sections of the Project, as discussed in Chapter 6. In all, then, undergrounding even a limited portion of the Project as a means of potential mitigation is both infeasible and environmentally more damaging than the currently proposed Project's overhead lines.

The proposed 230 kV transmission line would also traverse the City of Riverside's undeveloped Hole Lake and Savi Ranch park sites, various trails including the Santa Ana River Trail (refer to Table 3.2.14-2), and as noted above, the Hidden Valley Wildlife Area. Construction activities would result in noise, dust, and traffic that would reduce the aesthetic value of the area(s) and disrupt recreational and/or open space areas. Construction vehicles could also potentially restrict access by users of these facilities/areas in order to protect the safety of public recreationists. During construction, ground work would be required at each structure location as well as along select roadways between the locations. As a result, these areas would be temporarily closed

during construction activities. These impacts would be temporary and of short duration, lasting only as long as required to complete the activity in a given location. Depending on the activity (structure erection, transmission line stringing, etc.), the duration of construction activities at any one location along the ROW would generally range from a few minutes to a few days.

During operational activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. In addition, impacts would also occur if operational activities require that certain roads and/or trails be closed for access to infrastructure, and such closures remove access to existing recreational resources or opportunities. Such closures would be temporary and of short duration, lasting only as long as required to complete necessary operation and maintenance of infrastructure.

The restriction or disruption of recreational resources due to construction, operational, and maintenance activities would adversely impact members of the public who would otherwise use affected recreational resources during the time period(s) that they would be restricted or disrupted. Implementation of mitigation measures MM-REC-01 (Recreation Area Closures) and MM-REC-02 (Replace land purchased or improved with Land and Water Conservation Funds) in addition to EPE REC-1 (Recreational Areas), EPE REC-2 (Closure Notices), and EPE REC-3 (Revegetation) serve to minimize the impacts to recreation users and would ensure that impacts are moderate or less than significant.

Significant Unavoidable Impacts

With the adoption of the Mitigation Measures, the Proposed Project will not result in significant unavoidable impacts to Recreation.

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3.2.15 TRANSPORTATION AND TRAFFIC

Information in this discussion is derived from the “Traffic Technical Report” (POWER Engineers, Inc. and KOA Corporation, ~~April~~ June 2010).

Regional Setting

The regional setting for the Proposed Project includes the northwest corner of Riverside County, with Proposed Project components located within unincorporated sections of Riverside County as well as the more urbanized City of Riverside. Communities in Riverside County within the northern and western areas of the regional setting include Norco, Eastvale, and Mira Loma in addition to the Cities of Riverside and Jurupa Valley.

Methodology for Resource Inventory and Other Data Collection

In order to complete the traffic impact sensitivity analysis, a field survey was conducted to collect data on the characteristics (e.g., number of lanes) of major area roadways that would be crossed by the Proposed Project links (defined as orientation to route). In order to incorporate information into the analysis from planned area roadway projects, information was compiled from Transportation Improvement Plans (TIPs) from the County of Riverside and the City of Riverside as well as the Southern California Association of Governments’ Regional Transportation Plan (RTP). The RTP is a multi-modal, long-range planning document prepared in coordination with federal, state, and other regional, sub-regional, and local agencies in southern California. The RTP includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, freight, and finances. The State Transportation Improvement Plan (STIP), maintained by the California Department of Transportation (Caltrans), was also reviewed.

Environmental Setting

The Proposed Project study area includes several local and major regional transportation facilities that traverse the City of Riverside and Riverside County. Local roads consist of two-lane residential streets and four-lane arterial roads. Major regional highways in proximity to the Proposed Project area include Interstate 15, State Route 60, and State Route 91.

The proposed 69 kV line or 230 kV lines would cross over the following arterials: La Sierra Avenue, Magnolia Avenue, Limonite Avenue, and Van Buren Boulevard. Arterials have been assigned measures of effectiveness by the Riverside County Transportation Commission (RCTC) as part of its responsibility for congestion management in the County. The measure of effectiveness is called “level of service” or LOS. LOS is a qualitative measure of traffic operating conditions, whereby the letter grades of “A” through “F” are assigned to a roadway facility based on volumes over a specific time period and the design capacity of that facility over the same period. According to the RCTC’s Congestion Management Plan (CMP), the LOS for CMP System of roads (Interstates, state highways and principal arterials) is “E.” ~~According to the City of Riverside General Plan 2025, the city strives to maintain LOS “D” as the measure of effectiveness for arterials.~~ According to the County of Riverside “Circulation Element” of the 2003 General Plan, the target LOS along all County-maintained roads and conventional State highways is “C.” The City of Riverside follows Riverside County level of service standards. LOS “C” is the minimum acceptable LOS standard for the study area jurisdictions. Impacts for major roadways (the study roadway segment points) and the Wilderness/Jurupa and Van

Buren/Jurupa intersections were examined where LOS “D,” “E,” and “F” conditions could be caused or worsened by the Proposed Project.

After the issuance of the DEIR for public review and comment, and in light of comments and input received from the public, SCE reevaluated the proposed 230 kV transmission line route across the Vernola Marketplace and determined that shifting the line to the west closer to I-15 would be feasible. This change would require the proposed transmission line to cross Limonite Avenue closer to the northbound on- and off-ramps at the interchange.

Table 3.2.15-1 is a list of the roads and trails where construction of the 230 kV transmission line and the 69 kV subtransmission lines would occur either parallel to and/or across these roadways and trails and will likely create temporary closure or lane reduction. The final design of the Proposed Project may result in the addition or removal of roadways that could be affected by construction. The existing and future LOS were not identified for these roads and streets.

TABLE 3.2.15-1. PROJECT AREA ROADWAYS AND TRAILS IN PROXIMITY TO PROPOSED LINE CONSTRUCTION

<u>Roadway/Trail/Bus Transit Route</u>	<u>Number of Lanes</u>	<u>Orientation to Route</u>
<u>230 kV Transmission Line</u>		
<u>Santa Ana River Trail</u>	<u>Paved trail</u>	<u>Crossing & Parallel</u>
<u>Van Buren Boulevard*</u>	<u>6</u>	<u>Crossing</u>
<u>68th Street*</u>	<u>2</u>	<u>Parallel</u>
<u>Limonite Avenue*</u>	<u>4</u>	<u>Crossing</u>
<u>Interstate 15/Limonite Avenue on-ramp</u>	<u>6</u>	<u>Parallel</u>
<u>Interstate 15</u>	<u>6</u>	<u>Parallel</u>
<u>Bellevue Avenue</u>	<u>2</u>	<u>Crossing</u>
<u>Wineville Road</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>69 kV Subtransmission Line (RERC Substation to Freeman Substation)</u>		
<u>Acorn Street</u>	<u>2</u>	<u>Parallel</u>
<u>Jurupa Avenue</u>	<u>6</u>	<u>Parallel</u>
<u>Van Buren Boulevard*</u>	<u>2</u>	<u>Crossing</u>
<u>Doolittle Avenue</u>	<u>2</u>	<u>Parallel</u>
<u>Arlington Avenue*</u>	<u>4</u>	<u>Parallel</u>
<u>Rutland Avenue</u>	<u>2</u>	<u>Parallel</u>
<u>Cypress Avenue</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>Crest Avenue*</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>Wells Avenue</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>Mull Avenue</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>Tyler Street*</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>Cook Avenue</u>	<u>2</u>	<u>Crossing</u>
<u>Hole Avenue*</u>	<u>4</u>	<u>Crossing</u>
<u>Magnolia Avenue</u>	<u>6</u>	<u>Crossing</u>
<u>Tyler Street*</u>	<u>6</u>	<u>Crossing & Parallel</u>
<u>Highway 91 / Indiana Avenue intersection</u>	<u>4</u>	<u>Crossing & Parallel</u>
<u>Indiana Avenue*</u>	<u>4</u>	<u>Crossing & Parallel</u>
<u>Gibson Street</u>	<u>2</u>	<u>Crossing & Parallel</u>
<u>69 kV Subtransmission Line (RERC Substation to Harvey Lynn Substation)</u>		
<u>Acorn Street</u>	<u>2</u>	<u>Parallel</u>
<u>Jurupa Avenue</u>	<u>6</u>	<u>Parallel</u>
<u>Van Buren Boulevard*</u>	<u>2</u>	<u>Crossing</u>
<u>Doolittle Avenue</u>	<u>2</u>	<u>Parallel</u>

<u>Roadway/Trail/Bus Transit Route</u>	<u>Number of Lanes</u>	<u>Orientation to Route</u>
Arlington Avenue*	4	Parallel
Rutland Avenue	2	Parallel
Cypress Avenue	2	Parallel
Crest Avenue*	2	Crossing & Parallel
Wells Avenue	2	Crossing & Parallel
Tomlinson Avenue	2	Parallel
Mull Avenue	2	Crossing & Parallel
Mobby Avenue	2	Crossing & Parallel
Jones Avenue	2	Crossing & Parallel
Cook Avenue	2	Crossing & Parallel
Hole Avenue	4	Crossing & Parallel
Minnier Avenue	2	Crossing & Parallel
Schuyler Avenue	2	Crossing & Parallel
69 kV Subtransmission Line (Wilderness/Wildlife Substations to RERC Substation)		
Wilderness Avenue	2	Crossing
69 kV Subtransmission Line (Wilderness/Wildlife Substations to Mountain View Substation)		
Industrial Avenue	2	Parallel
Railroad Tracks/Jurupa Avenue	2	Crossing & Parallel

*Denotes Riverside Transit Agency bus route (as of January 8, 2012)

Fixed-route transit services and demand response (dial-a-ride) transit services are provided by the Riverside Transportation Authority (RTA). Figure 3.2.15-1 shows the location of RTA bus transit routes in the Proposed Project area. RTA also participates with Omnitrans in San Bernardino County to provide express bus service between downtown Riverside and downtown San Bernardino, connecting with express service to Ontario. Additionally, the Riverside County Transportation Commission (RCTC) supports a number of specialized transportation programs, including shared ride and vanpool services, social service dial-a-ride, and specialized services for seniors and persons with disabilities. Metrolink is the regional commuter rail service provider, with two routes located in the Proposed Project area (see Figure 3.2.15-1).

Greyhound Bus Lines provides private transportation services that link the principal population centers of Riverside County with other regions.

Union Pacific Railroad Company and Burlington Northern Santa Fe Railway Company operate railway lines within the Proposed Project study area.

Pedestrian facilities include hiking and walking trails. One major facility, the Santa Ana River Trail, is proposed to extend along the Santa Ana River from the foothills of the San Bernardino Mountains to the Pacific Ocean.

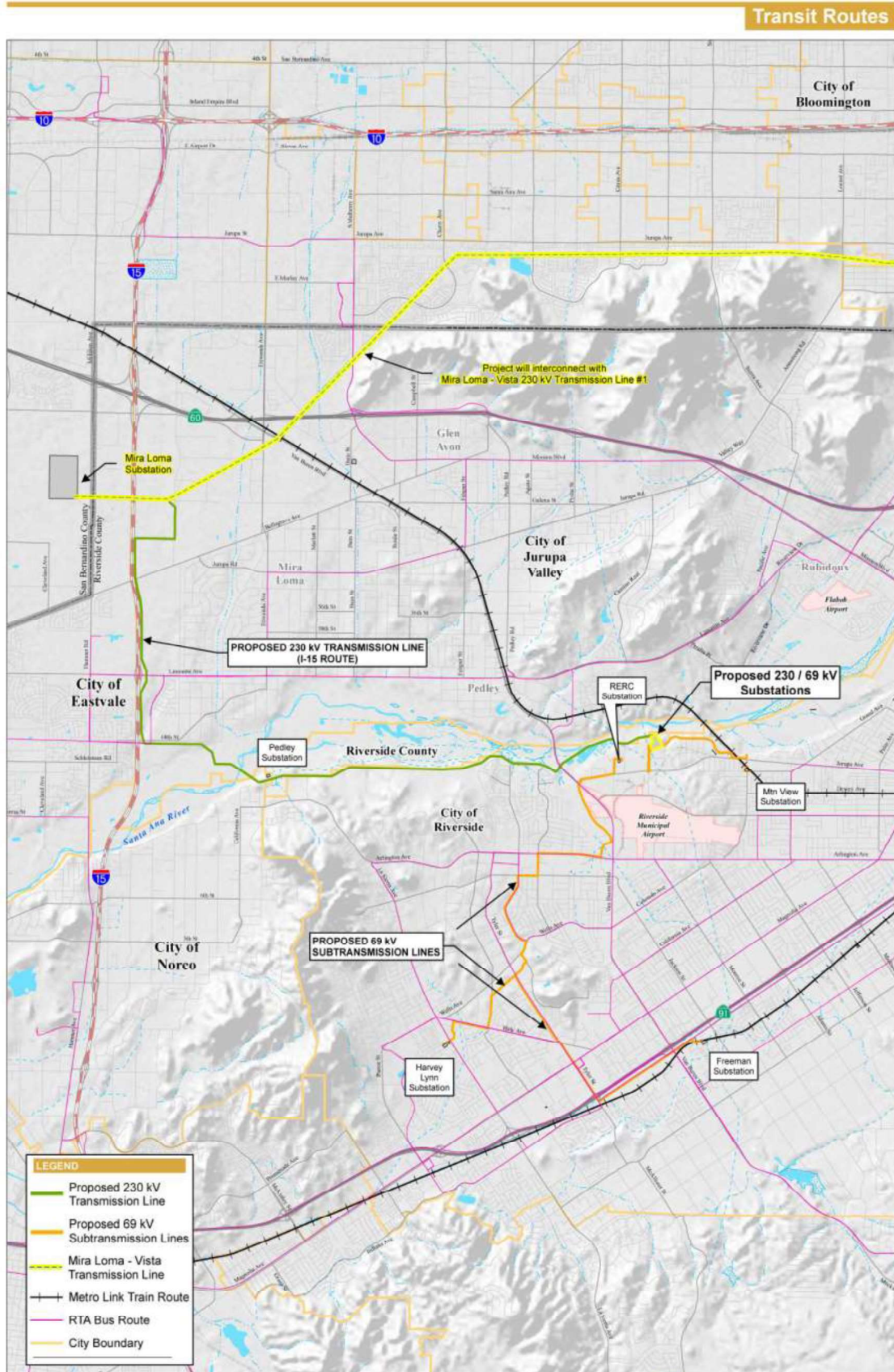
Bicycles are permitted on all roads in the State of California with the exception of access-controlled freeways. As such, the Proposed Project area's entire street network is effectively a bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The City of Riverside has a Bicycle Master Plan (Alta Planning + Design 2007) that documents existing and planned bicycle facilities, as well as goals and objectives for bicycle transportation management. The Bicycle Master Plan provides classifications for certain bicycle facilities located in the Proposed Project area. The previously mentioned Santa Ana River Trail is also classified by the City of Riverside as a Class I Bikeway. A Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway. A Class

II bikeway provides a striped and stenciled lane for one-way travel on a street. In the Proposed Project area, the following three roadway sections are classified as Class II bikeways:

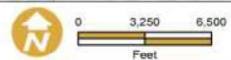
- Arlington Avenue from Coolwater Drive to Van Buren Boulevard
- Van Buren Boulevard from Arlington Avenue to California Avenue
- Van Buren Boulevard from the north Riverside city limits to Jurupa Avenue

Two general aviation airports, Riverside Municipal Airport and Flabob, are located in the study area.

FIGURE 3.2.15-1. TRANSIT ROUTES



Sources: Riverside Transit Agency, 2012
Metrolink, 2012



RIVERSIDE TRANSMISSION RELIABILITY PROJECT

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Regulatory Setting

Federal

Federal Aviation Administration regulation Title 14 Aeronautics and Space, Part 77 “Objects Affecting Navigable Airspace,” establishes standards for determining physical obstructions to navigable airspace.

State

The California Vehicle Code (CVC) and the California Streets and Highway Code outline regulations as pertains to the transportation of hazardous waste within the State. The California Streets and Highway Code includes regulations for the care and protection of State and County highways and provisions for the issuance of written permits.

Local

The RCTC’s CMP and the Circulation and Community Mobility Element of the City of Riverside General Plan 2025 are the plans that are used by Riverside County and the City of Riverside to manage the transportation system.

Impact Assessment

Significance Threshold Criteria

The CEQA Environmental Checklist Form has the following criteria as it relates to transportation and traffic.

Would the project:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?
- b) Conflict with an applicable congestion management program including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
- c) 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?
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e) Result in inadequate emergency access?
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Methodology

This section discusses the sensitivity ratings and values utilized for determining impact potential along the length of the Proposed Project links, and is focused on traffic impacts that could occur outside of the defined study roadway segment points. This sensitivity framework was then applied to establish an impact rating of “high,” “moderate,” or “low” by segment.

Sensitivity Ratings

Sensitivity ratings were developed for transportation resources that could be significantly impacted by the Proposed Project, in order to help determine the sensitivity to the siting and construction of the proposed transmission lines. Further, the sensitivity ratings were intended to compare geographic opportunities by Project links. Transportation facilities that would be crossed by the Project links would have similar sensitivity to impacts based on the type of facility or resource crossed by the links, and were therefore analyzed by this specialized methodology.

Sensitivity is defined as a measure of probable adverse response of a resource to direct and indirect impacts associated with the construction, operation, and maintenance of a transmission line. Sensitivity ratings were assigned to a number of transportation resources within the study area. These ratings were based upon a relative evaluation of the resource's importance and the impact potential that construction and maintenance of a transmission line would have upon that resource for the short-term (construction period) and long-term (operations and maintenance) durations of the Project. The determinations of sensitivity levels included consideration of the following:

- Roadway Classification: Functional classification is used to categorize roadways according to their predominant role in the highway network and their physical setting. Typically, the role of the roadway in the network is determined by the level of mobility provided to automobile traffic by that roadway. On this basis, the functional classification differentiates between highways, arterial, collector/secondary, and local roadways. Highways provide regional connectivity and have high sensitivity, while arterials serve those corridor movements that have long trip length and high volumes and have moderate sensitivity. Collectors serve subordinate traffic generators, and local roads provide access to individual parcels; therefore, both have a low sensitivity in terms of potential impacts.
- Closures: The construction and maintenance of the transmission line may involve temporary partial or full road closures that can have an effect on traffic flow.
- Present and Future Uses: Potential conflicts could occur with planned and programmed transportation improvement projects. Roadway widenings, as the primary example, could necessitate an intensification of mitigation measures for identified impacts.
- Traffic volume: Truck trips and construction employee trips during the construction of the transmission line may create an increase of traffic and cause significant operational service degradations on roadways.
- Access: Maintenance access between major roadways and smaller access roadways, if directly connected, could cause localized traffic delays. Where construction or maintenance access would transition from a major roadway to a new small access roadway, safety conflicts or potential significant traffic delays could occur on the main roadway due to new truck movements.

Sensitivity Values

Using the framework defined above, the transportation network crossed by the Proposed

Project's transmission line corridors (including alternatives) was analyzed and assigned a relative sensitivity rating for potential impacts within the Project study area. Sensitivity ratings were categorized as "high," "moderate," or "low" based upon the following characteristics:

High Sensitivity: Includes areas that have the following characteristics:

1. An increase of traffic could have a direct detrimental effect on transportation system operations, where roadways are operating at or near capacity under existing conditions;
2. A planned roadway construction project would provide a wider roadway cross-section once complete, and Proposed Project construction methods would need to be modified significantly to span the road or selected travel lanes;
3. A fire station or hospital is located within 0.25 mile of the Project corridor and alternative access routes to those facilities around potential closures do not exist;
4. A public transit route would not have a viable alternative route (collector roadways or better) within 0.25 mile of existing route; and
5. Mitigation is not likely to be effective in substantially reducing significant impacts, based on roadway shoulder characteristics, topography, and other limiting factors toward the provision of temporary travel lanes.

Moderate Sensitivity: Includes areas that have the following characteristics:

1. An increase of traffic could have a direct detrimental effect on transportation system operations, but could be mitigated to insignificance on roadways that are operating at good levels of service under existing conditions;
2. The roadway would have limited conflict with current or planned roadway classification, and Proposed Project construction methods could be easily changed to accommodate any improved roadway cross-section;
3. A fire station or hospital is located within 0.25 mile of the Project corridor, with an alternate but longer access route to those facilities around the Project-related closure; and
4. A public transit route would have a viable but longer alternate route (collector roadways or better) within 0.25 mile of existing route.

Low Sensitivity: Includes areas that have the following characteristics:

1. Roadway sensitivity that has not been classified as high or moderate;
2. Planned roadway construction projects where construction methods would need little modification to accommodate minor cross-sectional or other changes;
3. Roadways where measures may be easily implemented to reduce the effects to less than significant;
4. Roadways likely used by emergency or transit vehicles, or other general access issues located on a grid system, with multiple available alternative routes on collectors or arterials.
5. Roadways that would have little or no change in traffic flow due to the construction or operation of the transmission line.

Traffic Impacts and Construction Methods

The traffic study assumed that some ground-based construction activity will be necessary on all analyzed links, although the details of the construction methods (e.g., construction of new towers) may be different within each link. The closure of bicycle lane facilities within work areas and the effect on rail operations, emergency vehicles response, school bus access, and other such

transportation resources/modes will also be of concern.

Construction Access

Access by construction vehicles to and from construction sites within the Project links, as well as direct access between existing area roadways and construction access roadways, can potentially cause localized traffic impacts. For the impact analysis, the characteristics of roadways within the study area were considered in terms of safe and efficient access to construction areas or construction access roads. This type of access would necessitate turning movements by construction vehicles from larger roadways to smaller construction access roadways.

Due to potential safety issues associated with construction access and major roadways (arterials), these were given higher sensitivity ratings.

Sensitivity Summary: Project Construction (Short-Term)

Table 3.2.15-2 summarizes the sensitivity ratings for the short-term period of Proposed Project duration (construction activities), and the rationale for each.

TABLE 3.2.15-2. SHORT-TERM DURATION SENSITIVITY RATINGS FOR ROADWAYS

<u>Resource Component</u>	<u>Sensitivity</u>			<u>Rationale</u>
	<u>High</u>	<u>Moderate</u>	<u>Low</u>	
<u>Roadways</u>				
<i><u>Dirt and Private Roads</u></i>				
<u>Sole Route to Land Uses (non-grid)</u>			•	<u>Access could create closures, but detours/diversions could likely accommodate access</u>
<i><u>Collector Roadways</u></i>				
<u>Collector, Grid Street System</u>		•		<u>Alternate access exists, via longer travel route</u>
<u>Collector, Non-grid Street System</u>	•			<u>Access could be cut off</u>
<i><u>Arterial Roadways</u></i>				
<u>Arterial or Mountain Road, Straight Alignment</u>		•		<u>Closures could cause significant traffic delays, but closures would be visible for long approach distances</u>
<u>Arterial or Mountain Road, Curvilinear Alignment</u>	•	•		<u>Closures could cause significant traffic delays, and many create significant traffic safety impacts due to short approach distances on curves</u>
<i><u>Highway (State Routes) or Freeway Facilities</u></i>				
<u>Any Highway or Freeway</u>	•			<u>Closures could cause significant traffic delays through single or multiple lane closures</u>
<u>Public Transportation Routes</u>				
<u>Without Alternate Route within 0.25 mile (non-grid)</u>	•			<u>Transit line temporary closures could be necessary</u>
<u>With alternate Route within 0.25 mile (grid)</u>		•		<u>Transit line route lengths and passenger walking distances could be lengthened</u>
<u>Emergency Access Route (within 0.25 mile of Fire Station, Hospital)</u>				
<u>Without Alternate/Parallel Route</u>	•			<u>Emergency access could be significantly impacted</u>
<u>With Alternate/Parallel Route</u>		•		<u>Emergency access would not likely be impacted, but response time would potentially be increased</u>
<u>School Bus Routes</u>				
<u>Public Schools within 0.25 mile</u>		•		<u>School bus routes could be lengthened during detour</u>

Resource Component	Sensitivity			Rationale
	High	Moderate	Low	
Railroad Corridors				
Passenger Rail	•			Passenger commute service could be affected
Freight Rail		•		Freight service could be delayed
Bicycle Routes				
Class I and Class II Facilities	•			Bicycle lane closures or detours could be necessary

Sensitivity Summary: Project Operations (Long-Term)

Table 3.2.15-3 summarizes the sensitivity ratings for the long-term period of Proposed Project duration (operations and maintenance), and the rationale for each.

TABLE 3.2.15-3. LONG-TERM DURATION SENSITIVITY RATINGS FOR ROADWAYS

Resource Component	Sensitivity			Rationale
	High	Moderate	Low	
Roadways				
All Dirt and Private Roads			• =	Maintenance access could create temporary closures but detours/diversions could likely accommodate access
All Local Roads			•	Maintenance access would not likely cause traffic impacts
All Collector Roads			•	Maintenance access would not likely cause traffic impacts
All Arterial Roadways			•	Maintenance access would not likely cause traffic impacts
All Highways/Freeways			•	Maintenance access would not likely cause traffic impacts
Public Transportation Routes				
All Transit Routes			•	Maintenance activity would not likely create transit impacts
School Bus Routes				
Public Schools within 0.25 mile			• =	Maintenance activity would not likely create school bus service impacts
Railroad Corridors				
Passenger Rail			• =	Maintenance activity would not likely require access to rail rights-of-way
Freight Rail			• =	Maintenance activity would not likely require access to rail rights-of-way
Recreational Routes				
Class I and Class II Facilities			• =	Temporary impacts during access could be mitigated through the provision of bike lane diversions/detours

Environmental Protection Elements

Following best management and design practices throughout conception, construction, and implementation of the Proposed Project ensures that public safety is paramount and potential environmental impacts are minimized through avoidance. Table 3.2.15-44 outlines the proposed SCE and RPU Environmental Protection Elements (EPEs) related to transportation and traffic. As discussed above in Section 3.1.2, the EPEs have been *included as part of the Proposed Project*; therefore, the impact analysis section that follows includes the implementation of the EPEs listed below. Any impact resulting from the implementation of the Proposed Project (including the EPEs) is identified below. Where mitigation measures would reduce these impacts, the measures and their effectiveness have been included in the impact discussion.

TABLE 3.2.15-14. ENVIRONMENTAL PROTECTION ELEMENTS - TRANSPORTATION

Environmental Protection Element	Description
TRANS-01	Minimize Street Use. Construction activities would be designed to minimize work on, or use of, local streets.
TRANS-02	Incorporate Protective Measures. Any construction or installation work requiring the crossing of a local street, highway, or rail line would incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity. If necessary to ensure the safety of construction crews and the traveling public on state highways, continuous traffic breaks operated by the California Highway Patrol would be planned and provided.
TRANS-03	Prepare Traffic Management Plans*. Traffic control and other management plans would be prepared to minimize project impacts on local streets.
TRANS-04	Repair Damaged Streets. Any damage to local streets caused as a result of project construction would be repaired and restored to preconstruction conditions.

*Traffic control and other management plans would be prepared to minimize Proposed Project impacts on local streets and bike lanes, railroad operations (Union Pacific, Metrolink), emergency services, transit bus operations, recreation facilities, school bus operations and other planned roadway projects. The plans would be developed in collaboration with the responsible agencies of these transportation modes, programs, and projects. The plans will include provisions to accommodate emergency response vehicles at all times, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes.

Mitigation Measures

When the Proposed Project (even with integration of EPEs) would result in significant initial impacts, specific mitigation measures (see Table 3.2.15-25) are recommended to reduce impact levels to less than significant. The following mitigation measures would be applied for impacts related to transportation and traffic during construction.

TABLE 3.2.15-25. MITIGATION MEASURES - TRANSPORTATION AND TRAFFIC

Mitigation Measure	Description
MM TRANS-01	Arterials, straight alignments; residential streets, roadway with specific access need (fire station, hospital/medical facility, school bus) – Provide construction closures that keep at least one lane of traffic open in each direction of travel at all times, or provide adequate lane capacity to generally provide a good level of service (maintain within bounds of current level of service) in traffic operations.
MM TRANS-02	Avoid Peak-Period Construction: To minimize traffic congestion and delays during construction, RPU and SCE shall restrict all necessary lane closures or obstructions on major roadways (i.e., Congestion Management Plan roadways) associated with project construction activities to off-peak periods. Lane closures shall be avoided during the 6:00 a.m. to 9:00 a.m. timeframe and the 3:30 to 6:30 p.m. timeframe, or as otherwise defined within the TMPs.
MM TRANS-03	Minimize Roadway Closures: Construction activities shall be designed to minimize work on, or use of, roadways crossed by the project corridor(s). This would be accomplished through limiting construction vehicle and equipment operations to identified disturbance sites (pad areas, access roads and staging areas) and by maintaining sock lines and conductors well above roadways during stringing operations.
MM TRANS-04	Bus transit route: Provide construction closures that keep at least one lane of traffic open with reversible flow (via flagmen) during times of transit line operation, unless an adequate detour route can be found within 0.25 mile of the closure point.
MM TRANS-05	Roadway with Class I or Class II Bicycle Facility: Provide construction closures that allow for continued bicycle access within the existing facilities during all times, or provide a safe diversion of the bicycle facility around the construction zone.

Environmental Impacts

Based on the CEQA Guidelines, the analysis considers whether the Proposed Project and alternatives would result in significant impacts to transportation.

a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit.**

Less Than Significant Impact With Mitigation Incorporation. Operation and maintenance of the Proposed Project would not conflict with Riverside City and Riverside County plans that establish measures of effectiveness of the transportation circulation system. After the Proposed Project is operational, service vehicles on the circulation network would only need to travel the transportation system to perform routine maintenance or respond to emergencies at the Proposed Project facilities. Such activities would not generate substantial vehicle traffic as to exceed City and County LOS standards.

Based on the sensitivity analysis conducted for determining traffic impacts, construction of the 230 kV transmission line would and the 69 kV subtransmission line from the RERC substation to the Freeman substation is anticipated to create temporary impacts along approximately 0.4 miles of the transmission line route at Limonite Avenue and the Vernola Marketplace shopping center parking lot south of Limonite Avenue, high traffic volumes. Table 3.2.15-6 shows the roads that are anticipated to have temporary high traffic volumes during 230 kV and 69 kV line construction. Temporary lane closures, detours, and stoppages of traffic that may occur during construction activity are expected to create transportation operation impacts, such as fewer travel lanes, an increase lane reduction, delays in travel time, reduced speeds, or stoppage of travel for motorists travelling.

TABLE 3.2.15-6. ROADWAYS ANTICIPATED TO HAVE HIGH TRAFFIC VOLUMES DURING CONSTRUCTION

<u>Roadway</u>	<u>Approximate Length of Roadway Affected</u>
<u>230 kV Transmission Line</u>	
<u>Limonite Avenue at Vernola Marketplace[#]</u>	<u>0.4 mile</u>
<u>69 kV Subtransmission Line-RERC Substation to Freeman Substation*</u>	
<u>Tyler Street at Cook Avenue</u>	<u>0.05 mile</u>
<u>Tyler Street from Magnolia Avenue to Indiana Avenue (across Highway 91); Indiana Avenue from Tyler Street for approximately ¼ mile northeast</u>	<u>1 mile</u>
<u>Indiana Avenue from Harrison Street to Gibson Street</u>	<u>0.7 mile</u>
<u>Gibson Street from Indiana Avenue to railroad tracks</u>	<u>0.1 mile</u>

*The three other 69 kV subtransmission line routes are not anticipated to experience temporary high traffic impacts during construction.

[#]With the proposed realignment of the 230 kV transmission line west of Vernola Marketplace, high traffic impacts on Limonite Avenue as well as motorists entering, exiting are anticipated in the vicinity of the northbound I-15 on- and travelling within off-ramps instead of the shopping center parking lot entry/exit points; however, the approximate length of Limonite Avenue would be affected by this realignment.

Integrated EPEs provide general protection but without specific mitigation, these temporary impacts would be significant. Specific mitigations to reduce impacts are described in Table 3.2.15-3 and would include: MM TRANS-01 to maintain level of service along straight alignments by keeping at least one lane open in each traffic flow direction; MM TRANS-02 to schedule construction to avoid peak traffic periods; and MM TRANS-03 to minimize closures at crossing points through restricting vehicle operations to designated work areas and keeping stringing operations well above roadways. With the implementation of mitigation measures MM

~~TRANS-01, -02, and -03~~; MM TRANS-04 to keep at least one lane of traffic open with reversible flow (via flagmen) during times of transit line operation, unless an adequate detour route can be found within 0.25 mile of the closure point; and MM TRANS-05 to provide construction closures that allow for continued bicycle access at all times or provide a safe diversion for bicyclists around the construction zone. Table 3.2.15-7 identifies the transportation infrastructure and the specific mitigation measure(s) that would be applied. With the implementation of mitigation measures, the resulting traffic impacts to each type of transportation resource would be less than significant.

TABLE 3.2.15-7. TRANSPORTATION INFRASTRUCTURE WHERE MITIGATION MEASURES WOULD BE APPLIED

Roadway/Trail/Bus Transit Route	Mitigation Measure(s)
230 kV Transmission Line	
<u>Santa Ana River Trail (Class I Bikeway)</u>	MM TRANS-05
<u>Van Buren Boulevard*</u>	MM TRANS-01, -02, -03, -04, -05
<u>68th Street*</u>	MM TRANS-01, -03, -04
<u>Limonite Avenue*</u>	MM TRANS-01, -02, -03, -04
<u>Interstate 15/Limonite Avenue on-ramp</u>	MM TRANS-01, -02, -03
<u>Interstate 15</u>	MM TRANS-01, -02, -03
<u>Bellevue Avenue</u>	MM TRANS-01, -03
<u>Wineville Road</u>	MM TRANS-01, -03
69 kV Subtransmission Line (RERC Substation to Freeman Substation)	
<u>Acorn Street</u>	MM TRANS-01, -03
<u>Van Buren Boulevard*</u>	MM TRANS-01, -02, -03, -04, -05
<u>Arlington Avenue*</u>	MM TRANS-01, -02, -03, -04, -05
<u>Rutland Avenue</u>	MM TRANS-01, -03
<u>Cypress Avenue</u>	MM TRANS-01, -03
<u>Crest Avenue*</u>	MM TRANS-01, -03, -04
<u>Wells Avenue</u>	MM TRANS-01, -03
<u>Tomlinson Avenue</u>	MM TRANS-01, -03
<u>Tyler Street*</u>	MM TRANS-01, -03, -04
<u>Indiana Avenue*</u>	MM TRANS-01, -03, -04
69 kV Subtransmission Line (RERC Substation to Harvey Lynn Substation)	
<u>Acorn Street</u>	MM TRANS-01, -03
<u>Van Buren Boulevard*</u>	MM TRANS-01, -02, -03, -04, -05
<u>Arlington Avenue*</u>	MM TRANS-01, -02, -03, -04, -05
<u>Rutland Avenue</u>	MM TRANS-01, -03
<u>Cypress Avenue</u>	MM TRANS-01, -03
<u>Crest Avenue*</u>	MM TRANS-01, -03, -04
<u>Wells Avenue</u>	MM TRANS-01, -03
<u>Tomlinson Avenue</u>	MM TRANS-01, -03
<u>Mull Avenue</u>	MM TRANS-01, -03
<u>Jones Avenue</u>	MM TRANS-01, -03
<u>Hole Avenue</u>	MM TRANS-01, -03
<u>Minnier Avenue</u>	MM TRANS-01, -03
<u>Schuyler Avenue</u>	MM TRANS-01, -03
69 kV Subtransmission Line (Wilderness/Wildlife Substations to RERC Substation)	
<u>Wilderness Avenue</u>	MM TRANS-01, -03
69 kV Subtransmission Line (Wilderness/Wildlife Substations to Mountain View Substation)	
<u>Jurupa Avenue</u>	MM TRANS-01, -02, -03

*Denotes Riverside Transit Agency bus route (as of January 8, 2012)

b) Conflict with an applicable congestion management program including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

No Impact. ~~The RCTC adopted is the CMP in March 2010 to address congestion management in the County agency and prepares congestion management plan (CMP). The latest update was prepared in December 2011 (VRTA Technologies, Inc. 2011). According to this document, RCTC's adopted minimum for roads on the CMP system is LOS "E." Roads on the CMP System roads—that are in the Proposed Project area include principal arterials (Limonite Avenue, Arlington Avenue, La Sierra Avenue, Magnolia Avenue and Van Buren Boulevard), Interstate 15 and State Highway 91. All principle arterials within The initial LOS screening-level analysis conducted as part of the CMP Update process showed that none of the CMP system roads in the Proposed Project area are crossed perpendicularly, except for Arlington Avenue which would be paralleled for approximately 0.7 miles. Interstate 15 would not be crossed; State highway 91 would be crossed at an existing overpass (Tyler Street). Not all of the streets where Proposed Project elements cross or parallel are principal arterials. Most of the streets are local streets. The target LOS along all County maintained roads and conventional state highways is "C." The City of Riverside follows Riverside County experiencing deficiencies (i.e., LOS standards for the roads it is responsible for maintaining, "F").~~

A specific roadway impact level of service (LOS) analysis was conducted for construction-related traffic for the Wildlife and Wilderness substations. Table 3.2.15-8 shows the results of the analysis. According to the LOS calculations that were conducted for the construction phase of the Proposed Project Wilderness and Wildlife substations, the Wilderness Avenue/Jurupa Avenue LOS would be "C" with or without the Proposed Project. As shown in Table 3.2.15-8, the Van Buren Boulevard/Jurupa Avenue intersection would be LOS "D" with or without the Proposed Project, so the existing condition would not be worsened by the Proposed Project.

TABLE 3.2.15-8. LEVEL OF SERVICE SUMMARY: WILDERNESS AND WILDLIFE SUBSTATIONS CONSTRUCTION

<u>Intersection</u>	<u>Existing</u>		<u>Existing WITH Project</u>		<u>Increase</u>	<u>Impact?</u>
<u>Weekday AM Peak Hour (Delay/Level of Service)</u>						
<u>Wilderness Ave at Jurupa Ave</u>						
<u>Worst Case</u>	<u>2.1</u>	<u>A</u>	<u>2.7</u>	<u>A</u>	<u>0.6</u>	<u>No</u>
<u>Average Delay</u>	<u>19.6</u>	<u>C</u>	<u>22.6</u>	<u>C</u>	<u>3.0</u>	<u>No</u>
<u>Van Buren Blvd. at Jurupa Ave.</u>	<u>37.0</u>	<u>D</u>	<u>39.1</u>	<u>D</u>	<u>2.1</u>	<u>No</u>
<u>Weekday PM Peak Hour (Delay/Level of Service)</u>						
<u>Wilderness Ave at Jurupa Ave</u>						
<u>Worst Case</u>	<u>2.2</u>	<u>A</u>	<u>3.0</u>	<u>A</u>	<u>.8</u>	<u>No</u>
<u>Average Delay</u>	<u>18.4</u>	<u>C</u>	<u>19.8</u>	<u>C</u>	<u>1.4</u>	<u>No</u>
<u>Van Buren Blvd. at Jurupa Ave.</u>	<u>44.2</u>	<u>D</u>	<u>46.5</u>	<u>D</u>	<u>2.3</u>	<u>No</u>

There are some designated roads and highways in the CMP system that would be impacted by the Proposed Project during construction. For the 230 kV transmission line, the traffic sensitivity analysis identified Limonite Avenue where it intersects with the Vernola Marketplace shopping

center parking lot entrance/exit points. With the proposed realignment of the 230 kV transmission line west of the Vernola Marketplace that SCE determined would be feasible after the issuance of the DEIR, these intersections are not anticipated to be impacted. However, Limonite Avenue, where it intersects the interchange on- and off-ramps, has the potential for high temporary traffic impacts when construction of the 230 kV transmission line is required to cross it. A specific LOS analysis of this intersection was not conducted as part of the traffic study or analysis of this new realignment. For the 69 kV subtransmission line construction, the traffic impact sensitivity analysis identified Highway 91 (at Tyler Street) as having the potential of experiencing high temporary traffic impacts (see Table 3.2.15-4).

Operation and maintenance of the Proposed Project, including the 69 kV subtransmission lines, 230 kV transmission line and substations, would not conflict with the CMP as these activities would involve only service vehicles to perform routine maintenance or respond to an emergency. ~~Such activities would not generate substantial vehicle traffic as to exceed the City and County's LOS standards of "C" for local streets and LOS "E" for CMP system roads.~~ Given the intermittent nature of operations and maintenance activities, trips by service vehicles would be expected to occur on the order of several times per year, but could be more frequent during emergencies.

To minimize traffic congestion and delays during construction to the extent feasible, RPU and SCE shall restrict all necessary lane closures or obstructions on major roadways associated with Proposed Project construction activities to off-peak periods, as feasible.

A possibility exists that CMP roadways and other roadways may be inadvertently damaged or purposely disturbed by construction activities. Tables 2.3.2, 2.5.1, 2.5.2, and 2.5.4 in Chapter 2 of the DEIR provide estimates of light (pick-up) and heavy truck types and use for the distribution, transmission, subtransmission, and fiber optic lines construction. Temporary construction damage may include cracked roadway pavement on shoulders resulting from operating heavy trucks and equipment or the removal of pavement for trenching purposes. ~~No damage to traffic lanes of CMP System roads is anticipated.~~ Trenching required for undergrounding of distribution lines, a section of the 69 kV subtransmission line along Doolittle Avenue and Morris Street west of Riverside Municipal Airport (see Section 2.3.5 and Figure 2.3-8), and telecommunication pathways (see Section 2.3.6 and Figure 2.3-9) would occur in very few roadway areas, and only on minor roads in these areas. Repairs would include patching or replacing the disturbed areas of pavement. Damage would not increase traffic, delay travelers or decrease road safety.

A delivery truck trip generation analysis was conducted for the construction of the Wilderness and Wildlife substations. It was assumed that deliveries would be arriving to the work site via Van Buren Boulevard and Jurupa Avenue. Therefore, each delivery would be equivalent to one vehicle round-trip (in/out). The total number of deliveries on site was determined based on previous experience with such projects:

- Wildlife Substation: 162 daily deliveries at any given time, which would potentially generate 324 vehicle round-trips
- Wilderness Substation: 162 daily deliveries at any given time, which would potentially generate 324 vehicle round-trips.

It was assumed that one substation would be constructed at a time with the same number of employees working on both substations. Table 3.2.15-9 shows the truck trip generation summary for the construction of the new substations.

TABLE 3.2.15-9. TRUCK TRIP GENERATION SUMMARY—WILDERNESS AND WILDLIFE SUBSTATION CONSTRUCTION

	Daily	AM PEAK HOUR		PM PEAK HOUR	
		AM IN	AM OUT	PM IN	PM OUT
Wildlife Substation	324	52	17	17	52
Wilderness Substation	324	52	17	17	52

Construction employee peak hour trip generation was also estimated for the 230 kV transmission line and 69 kV subtransmission line construction. For trip generation purposes, it was conservatively assumed that each employee would be driving to the work site. Therefore, each employee would be equivalent to one vehicle round-trip (in/out). The total number of employees on site was determined based on the total manpower for that particular project component. For the 230 kV line construction, 117 daily vehicle round trips over 12 months were projected. This is a worst-case estimate based on overlap of multiple construction phases and maximum activity at each of two marshalling yards. For the 69 kV subtransmission line, 63 daily vehicle round trips over 12 months were projected. For manpower information, see Chapter 2 Tables 2.5-1, 2.5-2, and 2.5-2a and accompanying text.

According to Exhibit 4-1D (2011 Level of Service on CMP System in North Western Riverside) in the 2011 Riverside County Congestion Management Plan, peak hour volumes of arterials in proximity to the proposed 230 kV transmission line route are:

- Limonite Avenue between I-15 and Etiwanda Avenue: 2,181
- Limonite Avenue between Etiwanda Avenue and Bain Street: 2,263
- Limonite Avenue between Bain Street and Van Buren Boulevard: 1,185
- Limonite Avenue west of I-15: 1,748
- Van Buren Boulevard between Arlington Avenue and California Avenue: 3,305

An additional 117 peak hour trips by construction workers would not contribute substantially to vehicle trips on these roads. The additional trips under this scenario would increase use of these arterial sections approximately 3.5% to 10%. Because the Proposed Project is a linear facility constructed in phases, workers would be distributed widely among construction locations and arterial commuting routes.

Peak hour volumes of arterials in proximity to the proposed 69 kV transmission line routes are:

- Limonite Avenue between Bain Street and Van Buren Boulevard: 1,185
- Van Buren Boulevard between Arlington Avenue and California Avenue: 3,305
- Van Buren Boulevard between Magnolia Avenue and Highway 91: 3,964
- Van Buren Boulevard between Highway 91 and Mockingbird Canyon Road: 3,179

An additional 63 peak hour trips by construction workers would not contribute substantially to

vehicle trips on these roads. The additional trips would increase use of these arterial sections by approximately 1.5% to 5%.

c) 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?

Less than Significant Impact. Air traffic departure and arrival patterns for fixed wing aircraft and helicopters would have no reason to change at Flabob Airport or Riverside Municipal Airport as a result of the Proposed Project. The tallest structures proposed for the Proposed Project are SCE's 230 kV tubular steel poles, which would not exceed 170 feet above ground level. Since the publication of the DEIR for public review, RPU and SCE re-evaluated the potential impacts of the Proposed Project, in particular the 69 kV subtransmission line and the 230 kV transmission line, on air navigation and consistency with the Riverside County Airport Land Use Compatibility Plan. RPU will underground a section of the 69 kV subtransmission line along Doolittle Avenue, between Jurupa Avenue and Morris Street, as well adhere to other conditions established by the Airport Land Use Commission (ALUC) during its April 12, 2012 development review to be compatible with the airport land use compatibility plan. SCE would be required to file 23 structures and one catenary associated with the 230 kV transmission line with the Federal Aviation Administration (FAA). The catenary will require marking and the FAA may require lighting some of the structures due to Visual Departure Flight Procedures. No current Visual or Instrument procedures would be impacted. The entire ALUC Development Review determination and SCE's obstruction analysis are located in Attachment B of the FEIR.

The operations area of a helicopter during construction would be limited to staging areas, stringing locations, the transmission line route, the airport, and the lattice tower locations. Final siting of staging areas and stringing locations for the Proposed Project would be conducted with the input of the helicopter contractor, and affected private landowners and land management agencies. The size of each staging area and stringing location would be dependent upon the size and number of structures to be removed and installed. Staging areas and stringing locations would likely change as the work progresses along the transmission lines. Helicopter fueling and overnight parking is assumed to occur at a local airport (e.g. Riverside Municipal Airport) and would be supervised by an airport's fixed base operator. For stringing work, helicopter activity is planned to occur during a total of approximately 35 days spread over the anticipated 18-month construction window. This level would result in an inconsequential change to Riverside Municipal Airport's published 110,000 annual flight operations.

The helicopter contractor will contact the FAA Riverside Flight Standards District Office to coordinate the helicopter construction activity and file a helicopter lift plan. For temporary changes to published air traffic procedures, the FAA will notify the aviation community through a "Notice to Airmen" of the increased helicopter activity and temporary helicopter construction in the Proposed Project area. The increased flights by one helicopter would not create substantial safety risks to the helicopter operator or to the areas where the helicopter construction is proposed.

~~Prior to~~During final project design and as far in advance of construction as possible, SCE will submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the FAA in accordance with applicable regulations and initiate consultation with the FAA to determine the extent of any aeronautical hazards, changes to existing air traffic patterns, and potential recommendations due

to the proximity of SCE facilities to existing airports. Following the completion of consultation, and the determination of the FAA, SCE will review and incorporate any recommendations of the FAA, and will submit documentation of this consultation to RPU into the design, construction, and operation of the 230 kV transmission line components of the Proposed Project.

RPU's 69 kV subtransmission lines will be in compliance with FAA height requirements. RPU will prepare and submit a Notice of Proposed Construction or Alteration (Form 7460-1) in accordance with FAA regulations to the FAA for review to ensure that the proximity of new overhead transmission lines will not create a hazard for pilots or result in a change to existing air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Less Than Significant Impact. The Proposed Project includes construction on both existing right-of-way and new right-of-way. Transmission line maintenance roads are classified into two groups: access roads and spur roads. Access roads are through roads that run between tower sites along a right-of-way and serve as the main transportation route along line right-of-way. These access roads are for the exclusive use of authorized personnel and not for use by the general public. Spur roads are roads that lead from line access roads and terminate at one or more transmission pole/tower sites. All curves on the roads would have a radius of curvature of not less than 50 feet, measured at the center line of the usable road surface. Access and spur road gradients would be leveled so that any sustained grade does not exceed 12 percent. New points of access to the existing roadway network will be required where new right-of-way is required for the Proposed Project.

RPU has consulted with the Riverside County Airport Land Use Commission regarding Proposed Project compatibility with airport operations. RPU will place a section of the 69 kV subtransmission line underground in the vicinity of Doolittle Avenue to be compliant with airport land use compatibility zones and remove a potential hazard to aircraft. No current Visual or Instrument procedures would be impacted at airports as a result of the Proposed Project.

e) Result in inadequate emergency access.

Less Than Significant Impact. Implementation of EPE TRANS-03 will include provisions in traffic management plans, which ~~is~~ are developed in conjunction with agencies, to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes. The impact to emergency response vehicles would be less than significant as these vehicles would be given priority to travel through construction zones by traffic control personnel and other motorists in order to reach their destination or have agreed to other arrangements, such as an alternate route or detour. In addition, emergency responders are expected to participate in the development of the traffic management plans, which would reflect their input and address their concerns.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

~~No~~ **Less Than Significant Impact.** Reviews of the City of Riverside's General Plan 2025 "Circulation and Community Mobility Element" and the Riverside County's 2008 "General Plan

Circulation Element” were conducted to identify policies, plans and programs related to public transit, bicycle or pedestrian facilities where the Proposed Project could create conflicts or be incompatible. The City of Riverside identifies public transportation (bus and rail service) and alternative modes of travel, such as bicycling and walking, as important components of a comprehensive circulation system. The City of Riverside’s General Plan identifies two objectives related to alternative transportation and non-motorized transportation:

Objective CCM-9: “Promote and support an efficient public multi-modal transportation network that connects activity centers in Riverside to each other and to the region.”

Objective CCM-10: “Provide an extensive and regionally linked public bicycle, pedestrian and equestrian trails system.”

The City of Riverside included nine policies (Policies CCM-9.1 to 9-9) in the “Circulation and Community Mobility Element” in support of Objective CCM-9 and twelve policies (Policies CCM-10.1 to 10.12) in support of Objective CCM-10.

Riverside County’s “General Plan Circulation Element” encourages increased ridership on public transit systems and increased use of alternative modes of transportation, including bicycles and walking. The Circulation Element includes “Public Transportation System” and “Non-Motorized Transportation” subsections with descriptions of service and policies to promote and support the existing and planned use of these alternative transportation modes and infrastructure. The “Public Transportation System” subsection includes policies (Policies C9.1 to 9.5) related to “Inter and Intra-County/Subregional Systems” (Riverside Transit Agency and Sun Line Transit Agency), “Community Systems” (such as vanpool and share ride), and “Common Carriers” (such as Greyhound Bus Lines); “Paratransit Service” for the elderly and physically handicapped (Policy C10.1); “Fixed Route Transit Service” (scheduled local/regional passenger bus service) (Policies C11.1 to 11.7); “Transit Oasis and Transit Centers” (Policies C12.1 to 12.5); and “Passenger Rail Systems” such as Amtrak and Metrolink (Policies C13.1 to 13.8). The “Non-Motorized Transportation” subsection includes policies related to “Non-Motorized Transportation” (Policies C15.1 to 15.5) and “Bikeways” (Policies C17.1 to 17.4).

These policies were reviewed to determine their applicability to the Proposed Project and whether the construction, operation and/or maintenance of the Proposed Project would conflict with them. It was determined that the Proposed Project would not conflict or interfere with alternative transportation policies and objectives. During construction, buses, vans and other vehicles that provide the public or alternative transportation service and bicycles would be subject to the same construction-related traffic and detours as other motorists who travel in a construction zone area; however, these would be temporary. Operation and maintenance of the Proposed Project would not permanently decrease the performance of public transit, bicycle or pedestrian facilities or programs in the City of Riverside and Riverside County.

EPE TRANS-03 (Prepare Traffic Management Plans) includes consulting with transit agencies and agencies responsible for managing pedestrian facilities and bicycle lanes to coordinate project construction activities and temporary effects to transportation operations of these alternative transportation modes, including lane/sidewalk closures. See Table 3.2.15-7 for the transportation infrastructure and the specific mitigation measure(s) that would be applied.

Nighttime Construction

After sunset construction has the potential to occur approximately from 5 p.m. to 6 p.m. each work day afternoon during the winter months (December, January, February) when twilight settles onto the Proposed Project site. Although this time period is not defined as “night,” artificial illumination may be required for allow for the completion of work tasks and daily clean-up as well as for safety. When work is being performed on the Proposed Project adjacent to or across roads during this time, temporary lighting units would be in operation to provide workers with a level of illumination that will allow the safe continuation of their work. Similar to daytime construction, motorists may experience travel delays resulting from detours, lane closures and reduction in speed in these nighttime construction zones. Light from the temporary lighting units may temporarily distract motorists until their vehicles pass by the temporary lighting units. No overnight or late-hour construction is planned as part of the Proposed Project.

Simultaneous Construction of the 230 kV Transmission and 69 kV Subtransmission lines

As discussed in Chapter 2, it is ~~infeasible for~~ unlikely that construction of the 230 kV and 69 kV components of the Proposed Project ~~to would~~ overlap significantly because of additional permitting, procurement, land acquisition, agency coordination, mitigation implementation and possible variances required for construction of a 230 kV transmission line. Nevertheless, because exact schedules are unknown at this time, the following analysis is provided assuming that, due to unforeseen circumstances, the Proposed Project components were constructed simultaneously. The only places where the 230 kV and 69 kV components are located in the same vicinity are near the intersection of Jurupa Avenue and Van Buren Avenue and along Acorn Street west of and adjacent to the RERC substation. As the 230 kV and 69 kV components are separated geographically for the most part, the components could be sequenced so that equipment and material deliveries and the commutes of workers to the Proposed Project sites would not create travel delays and congested roadway conditions above the current condition. Coordination between the general contractors, the City of Riverside, Riverside County, RPU and SCE would occur to work out the details of Proposed Project sequencing, including delivery routes for equipment and materials.

Significant Unavoidable Impacts

Mitigation measures would reduce all potential transportation-related impacts to less-than-significant. A statement of overriding considerations would not be required should the Proposed Project be approved.

References

Alta Planning + Design. 2007. “City of Riverside Bicycle Master Plan.” Prepared for the City of Riverside. Adopted May 22, 2007. Berkeley, CA

POWER Engineers, Inc. and KOA Corporation. 2010. “Traffic Technical Report-Riverside Transmission Reliability Project.” Prepared for Riverside Public Utilities, April 2010. Anaheim and Ontario, CA.

Riverside Transit Agency. 2012. System Map. 2012. Riverside, CA

VRPA Technologies, Inc. 2011. “2011 Riverside County Congestion Management Plan.” Prepared for Riverside County Transportation Commission. December 2011.

3.3 **MANDATORY FINDINGS OF SIGNIFICANCE**

CEQA Guidelines Section 15065 (Mandatory Findings of Significance) states that an EIR is required to be prepared for a project where there is substantial evidence, in light of the whole record that any of the following conditions may occur:

- a) The project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory;
- b) The project has possible environmental effects that are individually limited, but cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects); and,
- c) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly

In 2007, during early Proposed Project development, an Initial Study was prepared where RPU determined that an EIR was warranted because of the potential for significant environmental effects. Since that time, RPU and SCE have continued a process of alternative route refinement, data collection, and inter-agency consultation. As the Lead Agency, the City of Riverside determined that the Proposed Project has the potential to substantially degrade the quality of the environment as noted, that preparation of a new Initial Study would not be useful as a decision-making document, and that an EIR should be prepared. This approach is consistent with CEQA Guidelines Section 15063(a) as the Proposed Project in its present form clearly requires the preparation of an EIR.

Based on the entire record developed for this draft EIR, a mandatory finding of significance is warranted. Most elements of the Proposed Project would be constructed and operated in areas with a long history of ground disturbance and urban development; in addition, the Proposed Project would be developed within the guidelines of the MSHCP in coordination the Regional Conservation Authority to maintain the quality of the natural environment. Proposed Project development does not involve extensive demolition of buildings or archaeological resources. However, based on criterion (b), the Proposed Project would produce cumulatively considerable effects on agriculture, air quality, ~~hazardous waste~~ and hydrological resources. ~~The Proposed Project would neither directly not indirectly cause substantial adverse effects on humans.~~