Triton Substation Project

Draft Mitigated Negative Declaration and Initial Study

November 2009

Prepared for:

State of California
Public Utilities
Commission

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CALIFORNIA 94102-3298

Mitigated Negative Declaration

Southern California Edison's Triton Substation Project
Application No. A.08-11-019

Introduction

Pursuant to California Public Utilities Commission's (CPUC) General Order 131-D, Southern California Edison (SCE) has filed an application (A.08-11-019) with the CPUC for a Permit to Construct the Triton Substation Project (the project). The application, filed on November 21, 2008, included the Proponent's Environmental Assessment (PEA) prepared by SCE pursuant to Rules 17.1 and 17.3 of CPUC's Rules of Practice and Procedure. In accordance with the CPUC's General Order 131-D, approval of the project must comply with the California Environmental Quality Act (CEQA).

Pursuant to CEQA, the CPUC prepares an Initial Study (IS) for the project to determine whether significant adverse effects on the environment would result from project implementation. The IS uses the significance criteria outlined in Appendix G of the CEQA Guidelines as a basis for analysis. If the IS for the project indicates that a significant adverse impact could occur, the CPUC would be required to prepare an Environmental Impact Report.

According to Article 6 (Negative Declaration Process) and Section 15070 (Decision to Prepare a Negative Declaration or Mitigated Negative Declaration) of the CEQA Guidelines, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration (MND) for a project subject to CEQA when:

> *(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or*
>
> *(b) The initial study identifies potentially significant effects, but:*
>
> > *(1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*
> >
> > *(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

Based on the analysis in the IS, it has been determined that all project-related environmental impacts could be reduced to less-than-significant levels with the incorporation of mitigation measures. Therefore, adoption of an MND will satisfy the requirements of CEQA. The mitigation measures included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the IS.

Project Location, Description, and Purpose

The project would be located in the Cities of Temecula and Murrieta and unincorporated areas of southwestern Riverside County in California. The project would include construction of the 56 megavolt ampere (MVA) 115/12 kilovolt (kV) Triton Substation, decommissioning of the existing 33/12 kV Canine Substation, and decommissioning of an emergency 33/12 kV transformer bank at the 115/33/12 kV Auld Substation. The Triton Substation would be located on an approximately 10-acre parcel at the southeast corner of Nicolas Road and Calle Medusa in Temecula, Riverside County, California. Canine Substation is a temporary facility that is scheduled to be retired by June 2010. Similarly, the emergency transformer bank at Auld Substation is scheduled to be disconnected in 2010.

The project would also include construction of a 115 kV subtransmission line loop-in along Nicolas Road from an existing subtransmission line to the new Triton Substation (approximately 0.25 miles). The subtransmission line loop-in would be installed on seven to eight new tubular steel poles. Two new 12 kV underground, distribution duct banks would be built on the Triton Substation site. The project would include installation of new telecommunications lines from the Triton Substation to the Auld and Moraga Substations. Minor telecommunications equipment upgrades would be conducted within the Auld, Moraga, Pauba, Pechanga, Stadler, and Valley Substations.

SCE has designed the project to meet the long-term forecasted electrical demands of the Cities of Temecula, Murrieta, and unincorporated areas of southwestern Riverside County; maintain system reliability; and enhance operational flexibility. The Triton Substation has been designed for potential future expansion from 56 MVA to 112 MVA. SCE forecasts that demand in the service area may exceed the designed operating limits of existing facilities as early as the summer of 2010. A more detailed description of the project and its objectives is provided in Chapter 1 of the IS (Background Information).

Alternatives

The purpose of an alternatives analysis pursuant to CEQA is to identify options that would feasibly attain the project objectives while reducing the significant environmental impacts resulting from the project. CEQA does not require inclusion of an alternatives analysis in MNDs because the IS concludes that, with incorporation of mitigation measures, there would be no significant adverse impacts resulting from the project. Pursuant to Section IX.B.1.c of CPUC General Order 131-D, however, the PEA did present information on several alternatives. While the information provided was not sufficient for a detailed analysis, the alternatives that were considered are presented and discussed in Appendix A of the IS.

Environmental Analysis

The IS was prepared to identify the potential environmental effects resulting from project implementation and evaluate the level of significance of these effects. The IS was based on SCE's PEA, project site reconnaissance by the CPUC environmental team, and other environmental analyses for the project. Measures to address potentially significant impacts, proposed in SCE's PEA, are referred to as project design features (PDFs) and have been incorporated into the analysis presented in the IS. A complete listing of PDFs is provided in Table 1.8-3 of the IS.

Based on the analysis presented in the IS, additional mitigation measures are recommended to ensure that project impacts are less than significant. The additional mitigation measures either supplement or supersede the PDFs. Implementation of the following mitigation measures (MMs) would avoid potentially significant impacts identified in the IS or reduce them to less-than-significant levels.

Aesthetics

No mitigation measures were identified in the IS for this resource area.

Agriculture and Forest Resources

No mitigation measures were identified in the IS for this resource area.

Air Quality and Greenhouse Gases

No mitigation measures were identified in the IS for this resource area.

Biological Resources

MM BIO-1: Limit Removal of Native Vegetation Communities. The applicant will avoid removal of intact coastal sage scrub, as determined by the onsite qualified biologist/biological monitor.

MM BIO-2: Best Management Practices (BMPs). BMPs to be prescribed by the Stormwater Pollution Prevention Plan (PDF BIO-5) shall include but are not limited to the following:

- The applicant will use public roads and pre-existing, established routes for access to work areas for installation of the telecommunications lines.
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel within the proposed project footprint.
- The applicant shall not stockpile brush, loose soils, excavation spoils, or other similar debris material within sensitive habitats.
- The applicant will ensure proper handling of invasive native and non-native plant species removed during construction to prevent sprouting or regrowth.

MM BIO-3: Protection of Special Status Plant Species. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-8. The applicant will conduct protocol-level botanical surveys within areas that contain habitat suitable to support special-status plant species during the blooming season. These surveys will occur prior to construction to determine presence or absence of special status plant species of concern in areas where construction activity is planned. Desktop evaluation of soil types within the project area will be conducted prior to the pre-construction botanical survey to determine if suitable soils for special status plants are present. Special status plant species of concern include, but are not limited to, Munz's onion, San Diego ambrosia, Plummer's mariposa lily, intermediate mariposa lily, long-spined spineflower, and round-leaved filaree. Construction can occur within the area if these surveys show special status plants to be absent there.

The applicant will flag and avoid all project activities in areas where these surveys show special status plants to be present. The applicant will also report geo-referenced plant locations to the U.S. Fish and Wildlife Service and the California Department of Fish and Game (Wildlife Agencies). The applicant will implement avoidance measures including, but not limited to, the following:

- Flags will be placed to mark the boundaries of areas where special status plants are present near all areas where project activities are planned.
- The applicant will avoid the flagged areas and will not drive vehicles, go by foot, or place equipment or materials in any area with special status plants.
- Trenching to install telecommunications or other equipment will be conducted in existing, established access roads and other areas where special status plants are absent.
- Trenching will be conducted with equipment that is small enough to maneuver to avoid adjacent areas where special status plants are present.
- If special status plants are present in an area where trenching to install telecommunications or other equipment would be required to connect to an existing subtransmission structure, the applicant will identify and connect to an alternate structure where disturbance of special status plants can be avoided. This may require the applicant to extend the length of the trench to reach the alternate structure.

If the applicant cannot avoid construction activities in areas where there are special status plants present, then the applicant will become a Participating Special Entity (PSE) under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). As a PSE, the applicant will consult with the Wildlife Agencies and Western Riverside County Regional Conservation Authority (RCA) and follow the provisions set forth in the MSHCP, including but not limited to:

1. Conducting protocol-level surveys during the appropriate blooming season for "covered species" of concern
2. Submittal to the RCA of required documentation, including quantitative evaluations for the Determination of Biologically Equivalent or Superior Preservation (DBEST), as needed
3. Proposing and implementing mitigation measures developed in consultation with and approved by the Wildlife Agencies and the RCA

In consultation with the Wildlife Agencies and the RCA, the applicant will develop appropriate mitigation measures to reduce impacts on special status plant species to a less than significant level and consistent with provisions set forth in the MSHCP. Mitigation will include a tiered approach as summarized below and any other measures determined in consultation with the Wildlife Agencies and the RCA:

1. Preservation of 90 percent of the plant populations found within suitable habitat within the project area. Established, high quality populations known to occur within the project footprint will be avoided by construction and conserved 100 percent.
2. Depending on species and the likely success of replanting it, as determined through consultation with the Wildlife Agencies, as appropriate, plants will be relocated to a suitable replacement site. This will be accomplished by transplantation and seed/bulb collection within the project site. The applicant will relocate plants and/or seeds to adjacent areas that contain site specific requirements necessary for successful cultivation of the plant species. The applicant will identify appropriate replacement sites in consultation with the RCA. The applicant will prepare a quantitative evaluation for the DBEST based on survey results to determine the ratio of replacement conservation needed. The applicant will prepare a Revegetation Monitoring Plan that will be submitted to and approved by the RCA and Wildlife Agencies prior to initiating revegetation. The plan will outline transplanting activities, locations, monitoring requirements, and criteria to measure transplanting success.

3. The applicant will establish conservation easements on replacement site(s) to protect the populations in perpetuity.

MM BIO-4: Protection of Special Status Wildlife Species. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-1 and PDF BIO-3. If avoidance cannot be ensured (e.g., seasonal construction restrictions, passive relocation of the animal from the disturbance area, adjusting project footprint), the applicant will conduct protocol-level surveys prior to construction to determine presence or absence of special status wildlife species of concern in areas where suitable habitat occurs or is potentially present within the project area. Wildlife species of concern include, but are not limited to, coastal California gnatcatcher, loggerhead shrike, white-tailed kite, burrowing owl, Quino checkerspot butterfly, orange-throated whiptail, northern red-diamond rattlesnake, and the spotted bat. The protocol-level surveys will be conducted in areas where project activities could affect the species or their associated habitat including, as applicable, the substation property, the subtransmission line loop-in route, locations of wooden pole removal and new tubular steel pole installation, the Canine Substation, the telecommunications routes, other areas where there may be ground disturbance, and areas where noise may affect wildlife species.

The applicant's biological monitors will institute avoidance and construction activity monitoring measures as described in PDF BIO-3 to avoid potential impacts in areas where surveys show the presence of special status wildlife. The applicant will also report geo-referenced wildlife locations to the Wildlife Agencies.

If the applicant cannot avoid impacts on special status wildlife species, their associated habitat, and/or unique resources due to construction activities, then the applicant will become a PSE under the Western Riverside County MSHCP. As a PSE, the applicant will consult with the Wildlife Agencies and RCA and follow the provisions set forth in the MSHCP, including but not limited to:

1. Conducting protocol-level surveys during the appropriate season (e.g., nesting) for "covered species" of concern.
2. Submittal to the RCA of required documentation, including quantitative evaluations for the DBEST, as needed.
3. Proposing and implementing mitigation measures developed in consultation with and approved by the Wildlife Agencies and the RCA to reduce impacts on special status wildlife species to a less than significant level and as consistent with provisions set forth in the MSHCP.

MM BIO-5: Protection of Quino Checkerspot Butterfly. In addition to PDF BIO-1 and PDF BIO-3, the Quino checkerspot butterfly will be further protected from potential project impacts by the following:

- The applicant will conduct pre-construction botanical surveys that will include observation for and identification of primary host plants for the Quino checkerspot butterfly. These plants include plantain and white snapdragon, and may occur in association with coastal sage scrub and annual grasslands.
- The applicant will flag and avoid all project activities in any areas where potential host plant populations are found during pre-construction surveys.

MM BIO-6: Burrowing Owl Mitigation and Compensation. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-7. If impacts on the burrowing owl and/or their habitat (i.e., occupied burrows) are unavoidable, the applicant shall develop and implement a

Burrowing Owl Compensation Plan, as approved by the Wildlife Agencies, that is consistent with mitigation guidelines as outlined in the *California Burrowing Owl Consortium Protocol*.

The plan shall describe the compensatory measures that will be undertaken to address the loss of burrowing owl burrows within the project area. This will include preservation of 6.5 acres of foraging habitat contiguous with occupied burrow sites per breeding pair or single bird. If avoidance of burrows cannot be maintained, onsite passive relocation of owls will be preferred over active relocation. To compensate for loss of burrows, the applicant will provide one alternate natural (enlarged or cleared of debris) or artificial burrow in nearby contiguous foraging habitat for each collapsed burrow within the project area. Prior to collapsing burrows vacated through passive relocation, the applicant's biological monitor will conduct daily monitoring for up to a 1-week period to confirm that the alternate burrows provided are being used by the owls. The applicant will not conduct active relocation unless the attempt at passive relocation has failed after 1 week. The applicant will obtain approval from the Wildlife Agencies before initiating any activities that have the potential to adversely impact burrowing owls.

MM BIO-7: Prevent the Entrapment of Wildlife. At the end of each workday during construction, the applicant will cover all open trenches or excavations to prevent the entrapment of wildlife (e.g., reptiles and small mammals). The applicant will maintain fencing around the covered excavations at night. The applicant's biological monitor will clear open trenches for wildlife at the end of each day, and again prior to resuming work on the trench.

MM BIO-8: Construction Work Will be Performed Outside the Bed, Banks, and Riparian Zones of Drainages, Wetlands or Water Bodies. The applicant's construction crews will not cross non-culverted drainages with vehicles, nor conduct construction activities or placement of equipment or supplies within the bed, bank or riparian zone of any drainage, wetland or water body. If construction activities require non-culverted drainages to be crossed, crews will traverse them by foot only, and use pre-existing, established access roads that circumvent non-culverted drainages for vehicle travel.

Cultural Resources

MM CUL-1: Unanticipated Discovery. If unanticipated resources are discovered during construction monitoring that are identified as potential historical or archaeological sites, the qualified archaeological monitor will suspend all construction activities in the vicinity of the find to evaluate the resource. The evaluation may require a subsurface testing and evaluation program for cultural resources. If remains prove to be significant and site avoidance cannot be implemented through project redesign, the applicant will implement a data recovery program to mitigate impacts.

If potential paleontological resources are discovered during construction, the qualified paleontological monitor will suspend all construction activities in the vicinity of the potential resource to examine the resource and determine the proper method to avoid adverse effects on the resource. At the paleontological monitor's discretion, the area in the vicinity of the potential resource may be flagged for avoidance or the potential resource may be removed from the site by plaster jacketing, taking a sample of the potentially fossiliferous formation, or, if necessary, excavation. Recovered specimens that are determined to be important paleontological resources will be prepared to the point of curation, including the washing of sediments to recover small invertebrates or vertebrates, and stabilized to mitigate impacts. In the event that recovered specimens are determined to be important paleontological resources, the applicant will prepare and execute a written repository agreement with an established, accredited museum repository, and all important paleontological specimens will be curated. To document that adverse impacts on paleontological resources were mitigated, the applicant will prepare a report of findings with an itemized

inventory of specimens and submit the report to the CPUC along with confirmation of the curation of recovered specimens into an established, accredited museum repository.

Geology and Soils

MM GEO-1: Disposal of Excess Excavated Materials. Excess excavation materials that are not used to backfill excavated areas shall be transported and disposed of offsite at an approved facility or used as clean fill, as appropriate.

Hazards and Hazardous Materials

MM HAZ-1: Hazardous Materials Management Practices. The applicant shall undertake the following measures:

1. Prepare and implement a hazardous substance management, handling, storage, disposal, and emergency response plan.
2. Train project personnel in appropriate work practices including spill prevention and response measures.
3. Contain all hazardous materials at work sites and properly dispose of all such materials.
    a. Hazardous materials shall be stored on pallets within fenced and secured areas and protected from exposure to weather.
    b. Fuels and lubricants shall be stored only at designated staging areas at least 100 feet from the edge of water bodies.
4. Restrict equipment refueling and lubrication to areas at least 100 feet from stream channels and wetlands.
5. Maintain onsite hazardous material spill kits for small spills.
6. Store sorbent and barrier materials at construction staging areas, including staging areas used during activities for decommissioning of the Canine Substation. Sorbent and barrier materials shall also be used to contain runoff from contaminated areas.
7. During decommissioning of the Canine Substation, protective barriers or other measures will be used to ensure that runoff from an accidental release of oil or other potentially hazardous materials do not enter the storm drainage system.
8. Perform all routine equipment maintenance at a shop or at the staging area and recover and dispose of wastes in an appropriate manner. Remove any vehicles with chronic or continuous leaks from the construction site and repair before returning them to operation.
9. Store shovels and drums at the staging area. If small quantities of soil become contaminated, use shovels to collect the soil and store in drums before proper offsite disposal. Large quantities of contaminated soil may be collected using heavy equipment and stored in drums or other suitable containers prior to disposal. Should contamination occur adjacent to staging areas as a result of runoff, shovels and/or heavy equipment shall be used to collect the contaminated material. Contaminated soil shall be disposed of in accordance with federal and state regulations.

MM HAZ-2: Contaminated Soil/Groundwater Contingency Plan. The applicant shall develop and implement a plan to address the unanticipated unearthing or exposure of buried hazardous materials or contamination or contaminated groundwater. The plan shall detail the steps that the applicant or its

contractor shall take to prevent the spread of contamination, the sampling that would be necessary if contamination is discovered, and the remedial action that would be taken.

Hydrology and Water Quality

No mitigation measures were identified in the IS for this resource area.

Land Use and Planning

No mitigation measures were identified in the IS for this resource area.

Mineral Resources

No mitigation measures were identified in the IS for this resource area.

Noise

MM NOI-1: Low-noise Substation Equipment and Noise Barriers. The applicant will ensure that substation operational noise levels will not exceed 45 dBA-10-minute Leq at the closest sensitive receptor. This will be achieved either through use of low-noise substation equipment or installation of noise barriers or both.

MM NOI-2: Restricted Work Hours. The applicant will ensure that project construction activities are restricted to daytime hours from 7:00 a.m. to 6:30 p.m. to avoid community nuisances.

MM NOI-3: Noise Reduction and Control Practices. The applicant will employ the following noise reduction and control practices during construction:

- Construction activities will be phased so that all equipment is not operating simultaneously.
- Construction traffic will be routed away from residences and other sensitive receptors, as feasible.
- Noise from back-up alarms (alarms that signal vehicle travel in reverse) in construction vehicles and equipment will be reduced by providing a layout of construction sites that minimizes the need for back-up alarms and using flagmen to minimize time needed to back up vehicles. As feasible, and in compliance with the applicant's safety practices and public and worker safety provisions required in the Occupational Safety and Health Standards for the Construction Industry (29 CFR Part 1926), the applicant may also use self-adjusting, manually adjustable, or broadband back-up alarms to reduce construction noise.

Population and Housing

No mitigation measures were identified in the IS for this resource area.

Public Services

No mitigation measures were identified in the IS for this resource area.

Recreation

No mitigation measures were identified in the IS for this resource area.

Transportation and Traffic

No mitigation measures were identified in the IS for this resource area.

Utilities and Service Systems

No mitigation measures were identified in the IS for this resource area.

Mitigation Monitoring, Reporting, and Compliance

A Mitigation Monitoring, Reporting, and Compliance Plan has been prepared to ensure that the mitigation measures presented above and PDFs listed in Table 1.8-3 of the IS are properly implemented. The plan is presented in Chapter 5 of the IS.

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Triton Substation Project

Initial Study

November 2009

Prepared for:

State of California
Public Utilities
Commission

Prepared by:

ecology and environment, inc.
International Specialists in the Environment

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Appendices

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Figures

1.0 Background Information

1.1 Project Title

Triton Substation Project (the project)

1.2 Lead Agency Name and Address

California Public Utilities Commission (CPUC)
Director, Energy Division
505 Van Ness Avenue, Fourth Floor
San Francisco, California 94102-3298

1.3 Lead Agency Contact Person and Phone Number

Iain Fisher, CPUC Project Manager
(415) 355-5580

1.4 Project Location

The project would be located in the Cities of Temecula and Murrieta and unincorporated areas of Riverside County, California (Figure 1-1). The proposed Triton Substation site is on the southeast corner of Nicolas Road and Calle Medusa in Temecula (Figure 1-2). The two new 115 kilovolt (kV) subtransmission line segments would be on the south side of Nicolas Road in Temecula, running approximately 0.25 miles west from the Triton Substation to the existing Valley-Auld-Pauba 115 kV subtransmission line. The project would include decommissioning of the existing Canine Substation, which is near the southwest corner of Nicolas Road and Calle Medusa in Temecula and decommissioning of a transformer bank at the Auld Substation in Murrieta. The project would also include installation of new telecommunications lines from the Triton Substation in Temecula through unincorporated Riverside County to the Auld Substation in Murrieta, as well as from the Triton Substation to the Moraga Substation in Temecula. Minor telecommunications equipment upgrades would be made within the substations at Auld and Stadler in Murrieta; Moraga in Temecula; Pauba and Pechanga in unincorporated Riverside County; and Valley in Romoland in Riverside County.

1.5 Project Sponsor's Name and Address

Southern California Edison Company (SCE)
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

1.6 General Plan Designation

The City of Temecula General Plan land use designations for the main project area (substation site and subtransmission line loop-in) are Very Low Residential, Low Medium Residential, and Nicolas Valley Rural Preservation Area. The land use designations for the segments of the telecommunications lines that would pass through the City of Temecula are Very Low Density Residential, Low Density Residential,

Low Medium Density Residential, Medium Density Residential, High Density Residential, Open Space, Public Institutional, Planned Development Overlay, and Specific Plan. Land use designations for the segments of the telecommunications lines that would pass through unincorporated Riverside County are Conservation, Business Park, Light Industrial, Public Facility, and Commercial Retail. Land use designations for the segments of the telecommunications lines that would pass through the City of Murrieta are Business Park and Rural Residential.

The project would also be located in or cross zones established by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), and would fall within the City of Temecula Sphere of Influence land use designations, as well as several planning zones for the French Valley Airport.

1.7 Zoning

The City of Temecula zoning designations that apply to the main project area are Very Low Density Residential and Low Medium Density Residential. The zoning designations for the segments of the telecommunications lines that would pass through the City of Temecula are Very Low Density Residential, Low Medium Density Residential, High Density Residential, Parks and Recreation District, and Public Institutional. County of Riverside zoning designations for the segments of the telecommunications lines that would pass through unincorporated Riverside County are Winchester Properties (Silver Hawk) specific plan, residential agricultural, light agricultural, industrial park, and scenic highway commercial. Zoning designations for the segments of the telecommunications lines that would pass through the City of Murrieta are Business Park and Rural Residential.

1.8 Description of the Project

1.8.1 Project Overview

The Triton Substation would be a new 56 megavolt ampere (MVA) 115/12 kV unattended low-profile electrical substation on an approximately 10-acre property in the City of Temecula, in Riverside County, California. The applicant has designed the substation to meet existing and forecasted electrical demands of the Cities of Temecula, Murrieta, and adjacent areas of unincorporated southwestern Riverside County. While the Triton Substation would be constructed as a 56 MVA substation, it is designed to be expandable to a total capacity of 112 MVA (a 56 MVA capacity increase) to accommodate future load growth.

Completion of the project would include the following:

- Construction of a 56 MVA 115/12 kV unattended substation.
- Construction of two underground 12 kV distribution duct banks from the 12 kV switchrack at the substation to the property boundary along two different paths.
- Creation of two new 115 kV subtransmission lines, each approximately 1,300 feet long, which would loop in the existing 115 kV Valley-Auld-Pauba subtransmission line. The new lines would be the Valley-Auld-Triton 115 kV subtransmission line and the Pauba-Triton 115 kV subtransmission line. Each of the two new subtransmission segments would consist of three conductors; they would be constructed on seven or eight new double-circuit engineered tubular steel poles (TSPs).

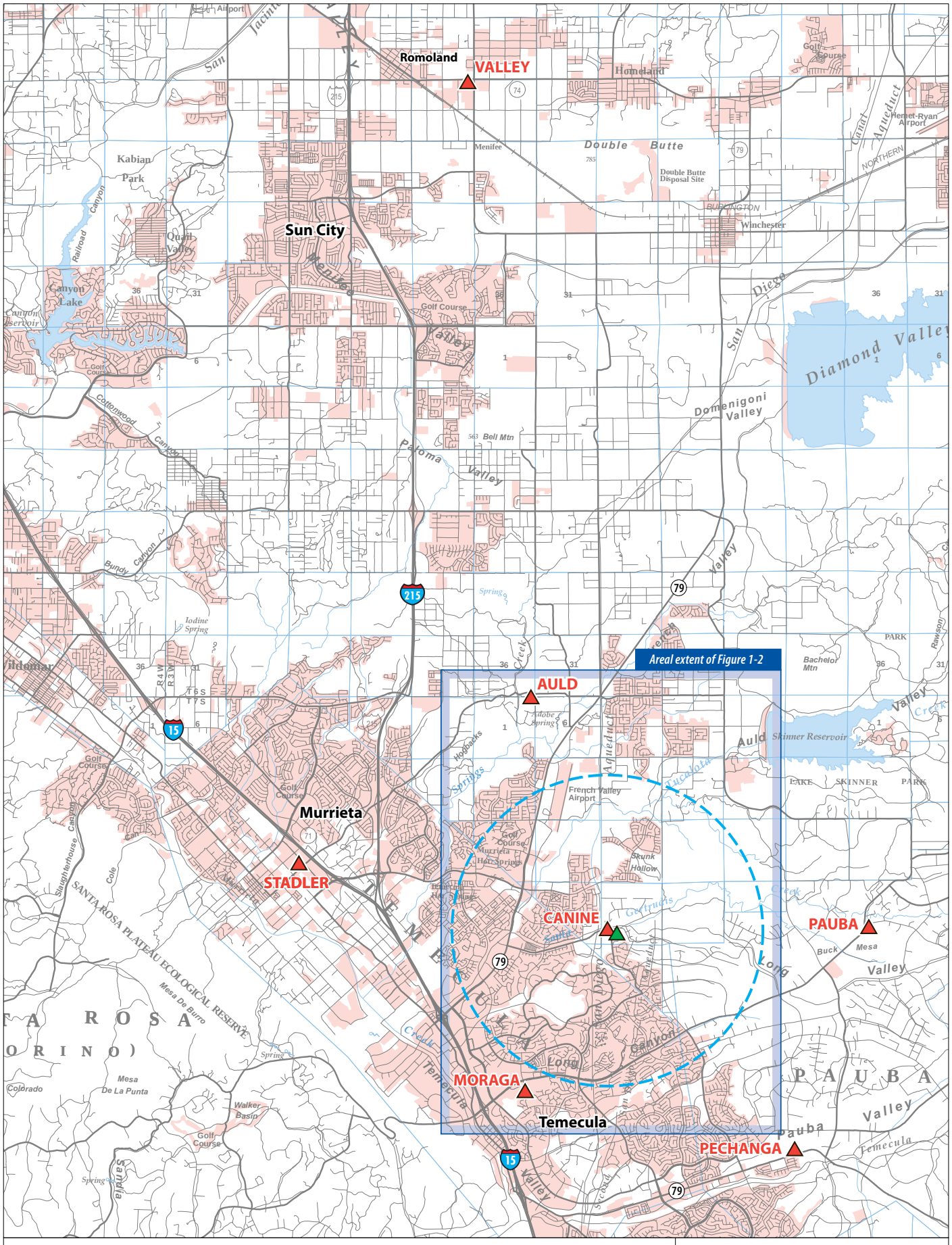

Figure 1-1

Regional Map

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Reference: *Figure 2.5-1, Site Alternatives Considered, Triton Substation Preliminary Environmental Assessment*, Southern California Edison, November 21, 2008

Source: Southern California Edison; Riverside County
Image Source: United States Geological Survey 1:24,000 Topographic Maps - Murrieta, Bachelor Mountain, Temecula, Pechanga

Auld
Canine
Moraga
Substation Footprint
See Figure 1-3 for detail
MURRIETA
UNINCORPORATED RIVERSIDE COUNTY
TEMECULA
RANCHO BELLA VISTA
JOHNSON RANCH
RORIPAUGH RANCH
WINCHESTER PROPERTIES
AULD-MORAGA
VALLEY-AULD-PAUBA
AULD-MORAGA #1
AULD-MORAGA #2
MORAGA-PECHANGA
MORAGA-STADLER
STATE ROUTE 79/WINCHESTER RD
LOS ALAMOS RD
PORTH RD
LEON RD
POURROY RD
BENTON RD
AULD RD
ALLEN RD
BOREL RD
SKY CANYON DR
HUNTER RD
PROMONTORY PKY
MCGOWANS PAS
CENTRAL PARK DR
COMMERCE CT
CALISTOGA DR
MURRIETA HOT SPRINGS RD
LIEFER RD
NICOLAS RD
SOUTH LOOP RD
LOS CHORAS RANCH RD
CALLE MEDUSA
WALCOTT LN
LA SERENA WY
N GENERAL KEARNY RD
DEL REY RD
MEADOWS PKY
MARGARITA RD
RANCHO CALIFORNIA RD
RANCHO VISTA RD
PAUBA RD
YNEZ RD
15
0 6,000
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LEGEND

- Existing substation
- Existing SCE 115 kV subtransmission line
- French Valley Airport
- Electrical Needs Area
- City of Temecula
- City of Murrieta
- Unincorporated Riverside County

Existing and Planned Developments

- Johnson Ranch
- Rancho Bella Vista
- Roripaugh Ranch
- #213 Winchester Properties (Silverhawk)

Proposed Project

Substations

- Triton Substation site
- Subtransmission line loop-in[1]

Telecommunication Routes[1]

- Aboveground
- Belowground

[1] – Subtransmission line loop-in and telecommunication routes are offset for graphical purposes only. Aboveground telecommunication cables would be located on subtransmission structures. Belowground telecommunication cables would be located in underground conduit.

Figure 1-2

Project Overview and Electrical Needs Area

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- Modification or replacement of one TSP currently supporting the existing 115 kV Valley-Auld-Pauba subtransmission line.
- Removal of eight wooden poles currently supporting the existing 33/12 kV distribution lines and removal of one wooden pole currently supporting the existing 12 kV distribution lines.
- Decommissioning and removal of the 18 MVA, 33/12 kV Canine Substation including the removal of two wooden poles.
- Relocation of the existing 33 kV distribution circuit from Canine Substation to the new structures and re-energizing it as a 12 kV distribution circuit.
- Decommissioning of a 33/12 kV emergency transformer bank at the Auld Substation.
- Connection of the new facilities to the applicant's telecommunications system through new telecommunications lines from the Mechanical and Electrical Equipment Room (MEER) at Triton Substation to the MEER at Auld Substation (approximately 5 miles) and from the MEER at Triton Substation to the MEER at Moraga Substation (approximately 4 miles).
- Performance of minor upgrades to existing telecommunications equipment within the MEERs at Auld, Valley, Pauba, Moraga, Stadler, and Pechanga Substations.
- The potential for future expansion of the Triton Substation from 56 MVA to 112 MVA.

1.8.2 Applicant's Purpose and Need

The applicant has designed the project to meet the long-term forecasted electrical demands of the Cities of Temecula and Murrieta and adjacent areas of unincorporated southwestern Riverside County while maintaining system reliability and enhancing operational flexibility.

The applicant identified the Electrical Needs Area (Figure 1-2) as the area currently served by the applicant's Canine 33/12 kV Substation, Moraga 115/12 kV Substation, and Auld 115/33/12 kV Substation. The applicant estimates these substations serve 40,660 metered customers.

The amount of electrical power that can be delivered in the Electrical Needs Area is limited to the maximum amount of combined electrical power these substations can transmit before their operating capacity limits are exceeded, currently 309 MVA under normal operating conditions.

The Southern California Association of Governments (SCAG) forecasts that during the next 20 years, the population of Temecula will increase by approximately 17,600 and Murrieta by 47,850. The forecasted population increase is predicted to result in approximately 8,900 new residential units in Temecula and 17,100 in Murrieta (SCAG 2004).

The applicant forecasts that the demand in the Electrical Needs Area may exceed the designed operating limits of the existing distribution facilities as early as the summer of 2010. Canine Substation is a temporary facility that is scheduled to be retired by June 2010. Similarly, the emergency transformer bank at Auld Substation is scheduled to be removed from service in 2010 when Triton Substation is operational.

According to the applicant, several areas of the Electrical Needs Area are already experiencing low-voltage conditions. The low-voltage conditions are caused by long distribution lines and increased electrical demand. Construction of the project would effectively reduce the length of the existing distribution lines, allowing the applicant to transfer electrical load between distribution lines and

substations in response to variations in demand. This would enhance operational flexibility and reduce the possibility of equipment overload, which can lead to equipment failure. According to the applicant, the reduction in length would also be necessary to maintain CPUC-mandated voltage levels.

1.8.3 Project Objectives

The applicant is proposing to construct the project to meet the following objectives:

- Serve long-term projected electrical demands in the Electrical Needs Area beginning in 2010
- Maintain system reliability within the Electrical Needs Area by locating electrical facilities in proximity to the demand
- Enhance operational flexibility by providing the ability to relieve load on surrounding substations, transfer load between distribution lines and substations within the Electrical Needs Area, and remove temporary transformers from service
- Use existing rights-of-way to the extent feasible
- Minimize the environmental impacts

1.8.4 Project Facilities

1.8.4.1 Triton Substation

The Triton Substation would be an unattended, 56 MVA 115/12 kV substation. The substation would be served by looping-in the existing Valley-Auld-Pauba 115 kV subtransmission line, which is located approximately 0.25 miles west of the proposed site (Figure 1-3).

The front entry of the new substation would face Calle Medusa and be set back a minimum of 50 feet east of the street's centerline. The north wall of the substation would be set back a minimum of 195 feet south of the centerline of Nicolas Road. The applicant estimates that the substation footprint (area contained within the perimeter wall) would be approximately 3 acres. The property frontage along Calle Medusa, consisting of approximately 1 acre, would be used for subtransmission line access, landscaping, vehicular access, and a front setback to the substation. Taking into account land for future street-widening, however, the site comprises approximately 8.5 acres of constructible land.

The new substation would include the following features:

- One 115 kV, low-profile switchrack
- Two 28 MVA 115/12 kV transformer banks
- One 12 kV low-profile switchrack
- Two 4.8 megavolt ampere reactive (MVAR) 12 kV capacitor banks
- A prefabricated MEER
- A restroom facility
- Exterior landscaping, stormwater drainage, emergency night lighting, and perimeter wall with a driveway and security gate for access to the substation

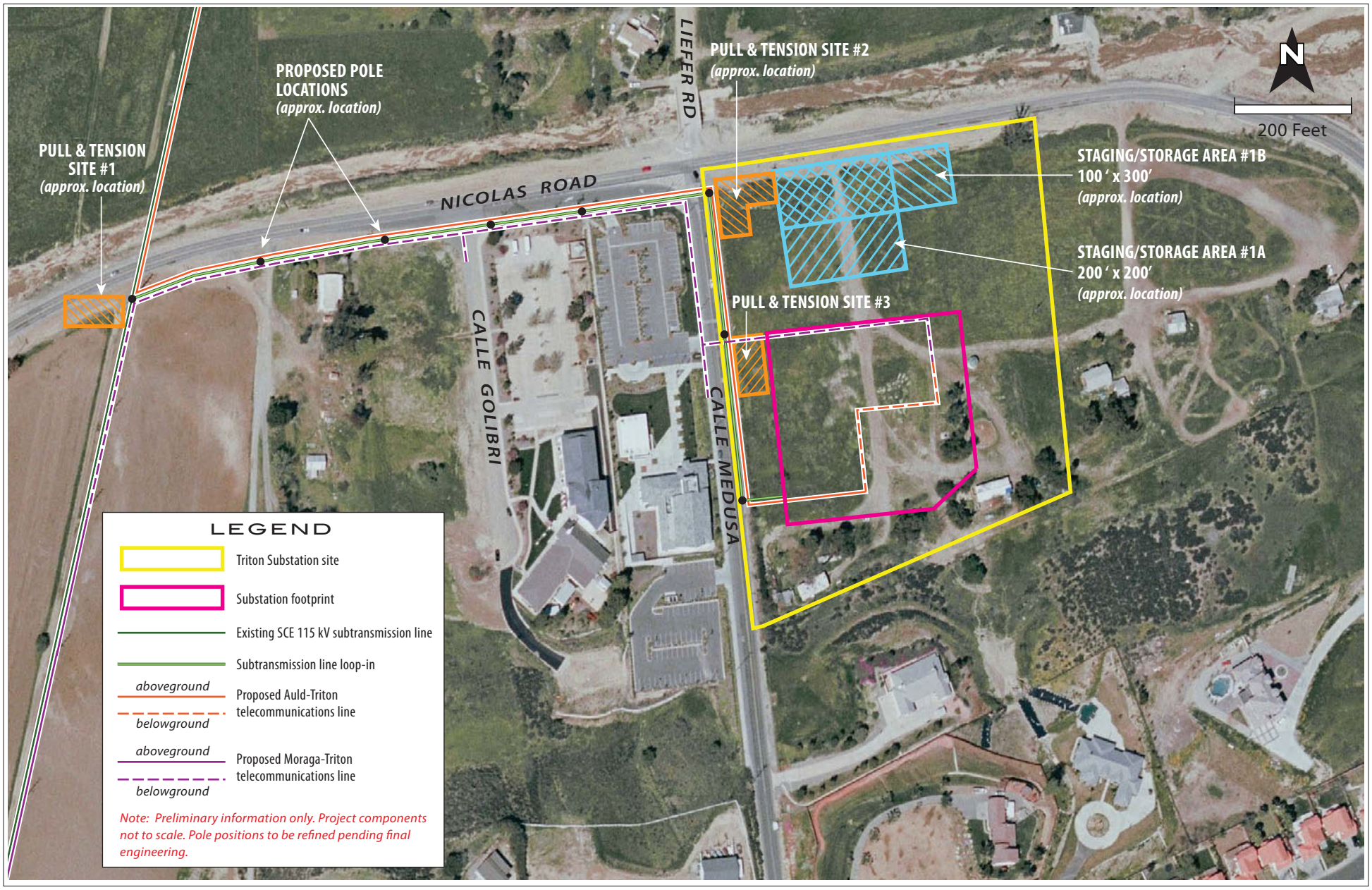

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Figure 1-3

Project Features

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Additionally, the substation would incorporate low-profile design features, which would limit the height of electrical equipment and structures to approximately 30 feet. The purpose of the MEER would be to house control and relay racks; battery and battery chargers; AC and DC distribution switchboards; and telecommunications equipment.

Lighting

Under normal conditions, the substation would not be illuminated at night. Lighting would be used when required for emergency repairs. Lighting would consist of high pressure sodium lights located in the switchracks, around the transformer banks, and areas of the yard where emergency activities might be required. Lights would be controlled by a manual switch and would normally be in the off position. These lights would be directed downward and shielded to reduce glare outside the facility.

Landscaping

Landscaping would be designed around the full perimeter of the substation in order to filter views for the surrounding community and other potential sensitive receptors near the substation. During final design, the applicant would consult with the City of Temecula to develop a landscaping and irrigation plan that would be consistent with the surrounding community, and the city would have final approval before issuing a landscaping permit. The applicant would implement the landscaping and irrigation plans after the substation wall is constructed and water service is established.

Drainage

Stormwater drainage inside the substation wall would be designed to minimize stormwater impacts on the substation operation. The internal run-off would be released from the substation through surface drainage structures. Drainage from the property would be collected and controlled by surface improvements. The applicant would be responsible for directing stormwater run-off to the subsurface drainage system and would prepare and implement drainage plans for the substation. Final design of the site drainage would be subject to the conditions of the grading permit obtained from the City of Temecula prior to construction.

Mechanical and Electrical Equipment Room

The dimensions of a typical MEER are 12 feet by 36 feet by 20 feet. Depending on the vendor, the MEER would have a light tan or beige roof and walls. The MEER might have dark brown trim along the roofline, wall joints, and doorway. The MEER would not likely have eaves or roof overhangs. The roof and exterior walls would likely be steel.

Restroom Facility

A stand-alone prefabricated permanent restroom enclosure 10 feet high, 10 feet long, and 10 feet wide would be installed in close proximity to the MEER. This facility would be connected to water and sewer lines when available. The applicant would obtain required permits from the City of Temecula prior to installation of the restroom facility and plumbing.

Security and Access

The substation would be enclosed on four sides by an 8-foot-high perimeter wall. The applicant would consult with the City of Temecula to develop the wall design, which would be consistent with the surrounding community standards and subject to the applicant's safety requirements. The city would review and approve the wall design plans prior to construction. The wall would likely be a light-colored decorative block and include periodic pilasters. A band of at least three strands of barbed wire would be affixed near the top of the perimeter wall inside of the substation. The barbed wire would not be visible

from the outside except from elevated vantage points south and southwest of the proposed substation facility.

The substation entrance would have a 20-foot wide asphalt concrete driveway leading from Calle Medusa to a locked gate for two-way traffic access into the substation. Access would extend into the substation to facilitate vehicular movement. A decorative rolling access gate would be installed with minimum dimensions of 8 feet by 24 feet.

1.8.4.2 12 kV Distribution Duct Banks

Two underground distribution duct banks, each consisting of six 5-inch conduits, would start at the 12 kV switchrack power cable trench and be routed out of the substation to the property boundary along two different paths. One path would head north to Nicolas Road and the other would head west to Calle Medusa. Each set of six 5-inch conduits would contain one conduit for telecommunications, one for a spare, and four to accommodate 12 kV distribution circuits to serve area developments.

1.8.4.3 115 kV Subtransmission Line Loop-In

The existing 115 kV Valley-Auld-Pauba subtransmission line would be looped into the Triton Substation to create two new 115 kV subtransmission line segments that would supply the source of power to the new substation. The two new line segments would be the Valley-Auld-Triton 115 kV subtransmission line and the Pauba-Triton 115 kV subtransmission line.

The new lines would extend west from the Triton Substation approximately 1,300 feet along the south side of Nicolas Road in Temecula to the existing Valley-Auld-Pauba 115 kV subtransmission line. Each of the two new subtransmission segments would consist of three conductors. The conductors for the new subtransmission lines would be constructed on at least seven new double-circuit engineered TSPs. In addition, to accommodate the line reconfiguration, The applicant would modify or replace one TSP currently supporting the existing 115 kV Valley-Auld-Pauba subtransmission line.

Tubular Steel Poles

The seven new TSPs and the eighth new or modified TSP would support the 115 kV subtransmission line conductors, the distribution lines relocated from existing distribution lines, and new telecommunications lines. Three of the new TSPs would be located along the east side of Calle Medusa and four would be located along the south side of Nicolas Road, west of Calle Medusa. The eighth TSP, which would either be modified or replaced, is located at the crossing of Nicolas Road and the existing 115 kV Valley-Auld-Pauba subtransmission line.

The new TSPs would be double-circuit structures with underbuilds for 12 kV distribution lines and telecommunications lines (Figure 1-4). They would have a non-specular galvanized surface. Steel cross-arms would be attached to each new TSP with single gray polymer insulators with either dead-end or suspension assemblies in a vertical configuration.

Eight wooden poles that currently support the 33/12 kV distribution lines from Canine Substation to the Valley-Auld-Pauba subtransmission line would be removed. A ninth wooden pole, which supports only the 12 kV distribution lines, would also be removed. The wooden poles would be removed and replaced by the TSPs.

Reference: *Figure 3.3-2, 115 kV Tubular Steel Pole (Double Circuit), Triton Substation Preliminary Environmental Assessment,* Southern California Edison, November 21, 2008

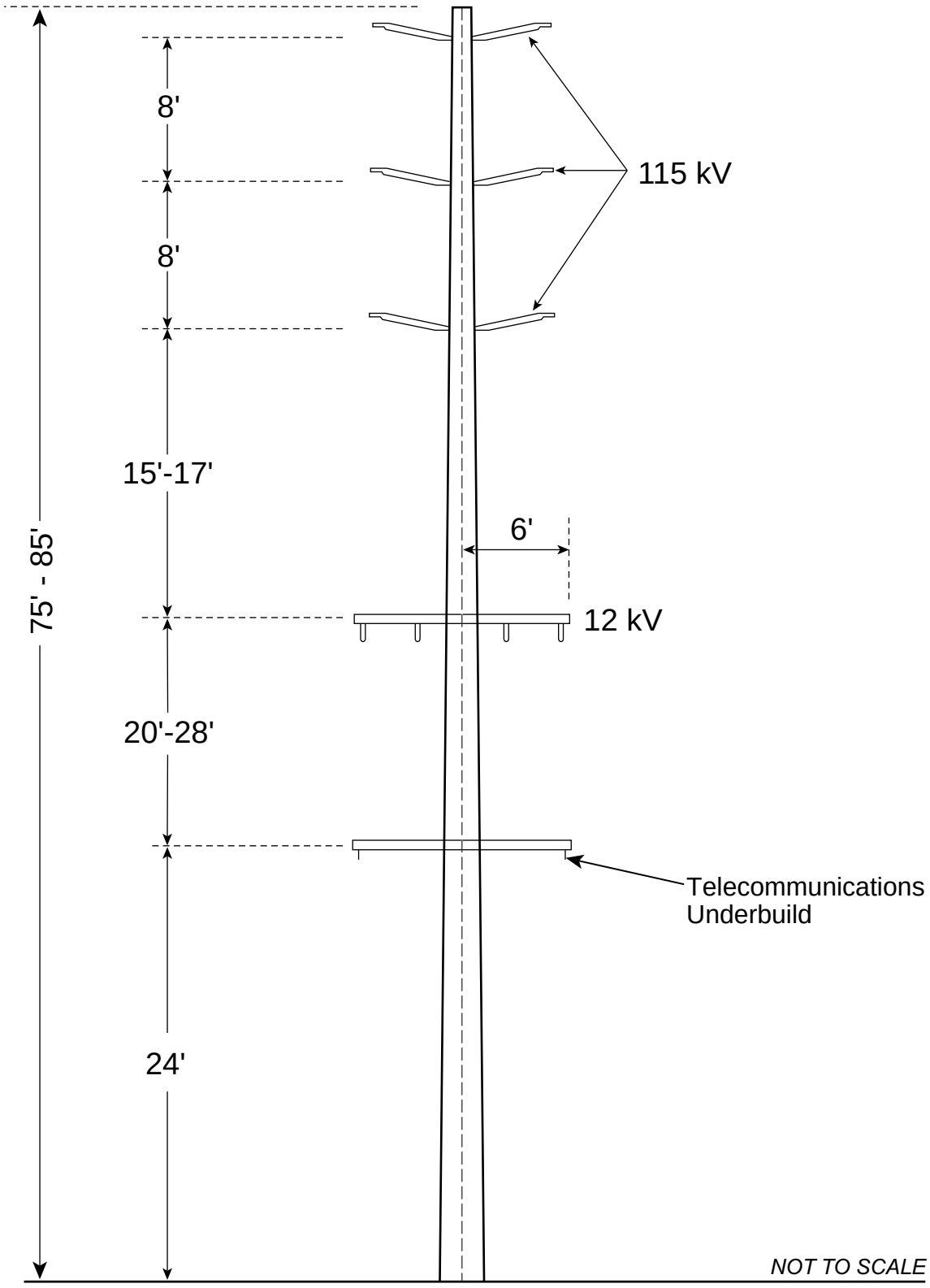

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Figure 1-4

Tubular Steel Pole for 115 kV Double-Circuit with Single-Circuit 12 kV and Telecommunications Line Underbuilds

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1.8.4.4 Relocation of Distribution Lines

Following installation of the new TSPs, the existing 33/12 kV and 12 kV distribution lines (currently carried on the wooden poles to be removed) would be relocated to the new TSPs. The distribution lines would be re-energized as a 12 kV distribution circuit.

1.8.4.5 Telecommunications Lines

Electrical equipment at Triton Substation would be operated and monitored through the applicant's telecommunications system. According to the applicant, operation and monitoring would require the installation of two 48-strand, fiber-optic cables. Telecommunications lines would be installed from Auld Substation to Triton Substation and from Triton Substation to Moraga Substation.

The telecommunications cables would connect from the new MEER at Triton Substation to existing MEERs at Auld and Moraga Substations. One cable would extend from the Auld Substation approximately 5 miles north along the existing Valley-Auld-Pauba subtransmission line to the Triton Substation. The other would extend from the Triton Substation approximately 4 miles south along the existing Auld-Moraga No. 2 subtransmission line (which shares some structures with the Valley-Auld-Pauba subtransmission line) to the Moraga Substation (Figure 1-2).

Additionally, the applicant would install optical multiplexers to upgrade existing telecommunications equipment within the MEERs at Auld, Valley, Pauba, Moraga, Stadler, and Pechanga Substations (Figure 1-1).

Triton to Auld Telecommunications Line

This telecommunications line would start from the MEER inside the northeast corner of the Triton Substation and proceed in a new trench to a riser conduit attached to a pole located inside the southwest corner of the substation. The line would leave the pole and extend overhead to the new subtransmission line loop-in structures. It would extend overhead along the new loop-in structures north to Nicolas Road. It would then cross Calle Medusa and extend west for approximately 1,050 feet along the south side of Nicolas Road to the existing Valley-Auld-Pauba 115 kV subtransmission line (Figure 1-3).

The telecommunications line would continue overhead in a northerly direction along the existing subtransmission line structures and cross Nicolas Road and Santa Gertrudis Creek. It would continue overhead for approximately 4,830 feet before descending into an existing underground conduit just south of Central Park Drive. It would continue north in the underground conduit for approximately 1,300 feet and then ascend through an existing riser conduit to the existing Valley-Auld-Pauba 115 kV subtransmission line. It would continue overhead in a northerly direction to Auld Substation. It would descend into an existing underground conduit and extend 300 feet to enter the Auld Substation boundary (Figure 1-2).

Triton to Moraga Telecommunications Line

This telecommunications line would start from the MEER inside the northeast corner of the Triton Substation and proceed in new underground conduit north for approximately 85 feet within the substation boundary. It would then continue west for approximately 300 feet to the west side of Calle Medusa. The line would continue south in new underground conduit for approximately 90 feet to an existing vault. From the vault, it would turn north and continue along the west side of Calle Medusa for approximately 300 feet to Nicolas Road. From the south side of Nicolas Road and west side of Calle Medusa, the line would travel in new underground conduit for approximately 1,000 feet to the existing Valley-Auld-Pauba

115 kV subtransmission line right-of-way (ROW). At the crossing of Calle Golibri (between Calle Medusa and the ROW), the telecommunications line would also extend south in new underground conduit for approximately 50 feet (measured from the centerline of Nicolas Road) to an existing vault (Figure 1-3).

From the intersection of Nicolas Road and the ROW, the telecommunications line would extend south in new underground conduit inside the ROW for approximately 350 feet and then ascend a new riser conduit to the existing Auld-Moraga No. 2 115 kV subtransmission line (Auld-Moraga No. 2 shares some structures with the Valley-Auld-Pauba subtransmission line). The telecommunications line would extend overhead in a southerly direction along the existing Auld-Moraga No. 2 115 kV subtransmission line to Moraga Substation. It would descend into an existing underground conduit and extend 25 feet to enter an existing vault and then enter the Moraga Substation (Figure 1-2).

1.8.4.6 Canine Substation Decommissioning

The project would include decommissioning of the Canine Substation, which is a temporary pole-top 33/12 kV substation near the southwest corner of Nicolas Road and Calle Medusa. The Canine Substation is scheduled to be retired by June 2010. It would not be decommissioned until the Triton Substation and related project facilities became operational.

Facilities at the Canine Substation include a 14 MVA, 33/12 kV transformer (the substation capacity is 18 MVA) and associated equipment (e.g., cross arms, lightning arrestors, and insulators); conductor cabling; poles and equipment installed on the poles; a transformer pad; conduit and a cement vault; gravel and vent pipes; a cinderblock wall; and a chain-link fence. The transformer and related equipment contain approximately 3,850 gallons of oil.

Decommissioning of the Canine Substation would involve de-energizing the transformer and removing it and associated equipment from the site. Cables, conductors, and other equipment would be removed from two wooden poles at the site, and the poles would be removed. The grounds and gravel, cinderblock wall, chain-link fence, transformer pad, and all other equipment and materials related to the Canine Substation would be removed. Transport of the transformer and other substation equipment and materials from the site would require the use of a crane, truck, and trailer.

1.8.4.7 Emergency Transformer Bank Decommissioning at Auld Substation

An emergency transformer bank currently in use at the Auld Substation due to excess electrical demand would be removed from service as part of the project. The emergency transformer bank is scheduled to be disconnected and de-energized in 2010 when the Triton Substation becomes operational. It would be disconnected and left in place at the Auld Substation for use during emergencies.

1.8.4.8 Triton Substation Expansion

The Triton Substation would be designed for eventual expansion from 56 MVA to 112 MVA, depending on need. Two 28 MVA transformers would be installed as part of the initial build, and there would be room for up to two additional 28 MVA transformers at the Triton Substation site. The additional transformers might be installed one at a time as needed to meet demand. In other words, the substation might be expanded from 56 MVA to 84 MVA and then from 84 MVA to 112 MVA.

1.8.5 Construction

1.8.5.1 Triton Substation

The substation footprint (area contained within the perimeter wall) would be approximately 2.5 acres. Approximately 1.5 acres of land immediately outside the substation perimeter wall to the north, east and south would be used for distribution duct banks, buffers, and landscaping. Site grading would be conducted over about 5 acres, including the substation footprint and buffer areas around the perimeter.

The internal substation area would be graded at a consistent slope of between 1 and 2 percent and compacted to 90 percent of the maximum dry density. The areas outside the substation wall would be sufficiently graded to provide drainage in keeping with the overall site drainage design. The northern and eastern portions of the overall property most likely would not be graded. Final design would be subject to the conditions of the grading permit obtained from the City of Temecula.

Approximately 0.5 acres inside the substation wall and 0.1 acres outside would be covered with an impervious surface; the remaining approximately 2 acres inside the substation wall would be covered with a loose layer of 4-inch-thick untreated crushed rock.

Grading

Earthwork for the substation would result in approximately 800 cubic yards of excavated soil. To prevent ponding within the interior of the substation, an estimated 5,000 cubic yards of imported fill would be required if the substation were graded to a 1 percent slope. The actual quantity of fill to be imported to the site would be calculated as part of the final engineering and design.

The substation grading design would incorporate Spill Prevention, Control, and Countermeasure (SPCC) Plan requirements due to the operation of oil-filled transformers at the substation. Typical SPCC Plan measures include curbs and berms designed and installed to contain spills if they occur. These design features would be part of final engineering.

Below-Grade Construction

After the substation site is graded, below-grade facilities would be installed, including a ground grid, trenches, equipment foundations, and the base of the substation wall. The design of the ground grid would be based on soil resistivity measurements collected during a geotechnical investigation that would be conducted prior to construction.

Equipment Installation

Substructures would be installed during the below-grade construction phase. After the installation of substructures, the above-grade installation of substation facilities (buses, capacitors, circuit breakers, transformers, steel structures, and the MEER) would then commence. The transformers would be delivered by heavy-transport vehicles and off-loaded on site by large cranes with support trucks. A traffic control service would be used during transformer delivery.

Installation of Base Materials

Upon completion of the substation facilities installation, a 4-inch-thick layer of untreated crushed rock would be placed within the walled area of the substation site, except in driveways and the 115 kV low-profile bus enclosures. These areas would be paved with asphalt concrete.

Testing and Energizing

Prior to energizing substation equipment, the equipment would be tested. Upon completion of successful testing, the equipment would be energized.

Stormwater Protection

Because construction of the project would disturb a surface area greater than 1 acre, the applicant would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the San Diego Regional Water Quality Control Board (SDRWQCB). To acquire this permit, the applicant would prepare a Storm Water Pollution Prevention Plan (SWPPP) that would detail project information; monitoring and reporting procedures; and Best Management Practices, such as dewatering procedures, stormwater runoff quality control measures, and concrete waste management, as necessary. The SWPPP would be based on final engineering design and would include all project components.

Material Staging

Construction of the project would require temporary staging and storage areas for materials and equipment during the construction process. The materials staging and storage would take place at the substation site, including conductor reels, wire stringing equipment, poles, line trucks, cross arms, insulators, and other incidental materials. The approximate locations of staging and storage areas are shown in Figure 1-3.

Construction Access

All materials for the proposed substation would be delivered by truck. The majority of the truck traffic would occur on designated truck routes and major streets. Trucks would use Nicolas Road to access the area and enter the site from Calle Medusa. Some deliveries, such as cement truck deliveries, would occur during peak hours when footing work is performed. The telecommunications crews would use public streets and the applicant's existing easements between the proposed substation and the existing Moraga and Auld Substations to install the telecommunications cable on new and existing overhead structures and underground conduit.

1.8.5.2 Tubular Steel Poles

Erecting one TSP typically requires an excavated hole approximately 7 to 9 feet in diameter and 30 feet deep. Such a hole typically results in the removal of 140 cubic yards of soil. After excavating foundation holes, reinforced steel (rebar cages) would be installed and concrete poured to create a foundation for the TSP. Cranes would be used to place the TSPs into the foundations. The TSPs would then be bolted to the foundations.

The TSPs would be delivered to the project site by truck. A traffic control service would be used during construction and the applicant would obtain the necessary encroachment permits prior to installation activities. Construction equipment used for installing and removing poles and for pulling overhead conductors would be positioned directly adjacent to the new and existing lines. The approximate locations of pull and tension sites are shown in Figure 1-3.

1.8.5.3 115 kV Subtransmission Line Segments

Conductor Installation

Conductors for the two 115 kV subtransmission line segments would be installed between the existing Valley-Auld-Pauba subtransmission line and Triton Substation. Two pull and tension sites would be

located on the Triton Substation property, and one would be located near the existing Valley-Auld-Pauba 115 kV subtransmission line (Figure 1-3).

Conductor pulling would be completed in accordance with the applicant's methods and specifications, which are similar to methods provided by the Institute of Electrical and Electronics Engineers Standard 524-1992, *Guide to the Installation of Overhead Transmission Line Conductors*. Conductors are pulled using individual reels with ropes strung along the poles. Conductors are pulled from each pull location using a conductor pulling machine. They are pulled three conductors at a time (i.e., one complete circuit per pull). A traffic control service would be used during overhead conductor pulling activities, and the applicant would obtain the necessary encroachment permits prior to conducting pulling activities.

De-energizing and Re-energizing

The existing Valley-Auld-Pauba 115 kV subtransmission line would be de-energized to complete the loop-in to the two new line segments. De-energizing and reconnecting lines to new poles could potentially be performed at night when electrical demand is lower, thereby reducing the potential for electric service outages. Once the connection (also known as a cut over) is complete, the subtransmission line would be returned to service (re-energized).

1.8.5.4 33/12 kV Distribution Line Relocation and Wooden Pole Removal

Following installation of the TSPs, the existing 33/12 kV distribution lines would be transferred to the new TSPs and the existing wooden poles would be removed. Standard practice for removing wooden electrical poles involves attaching a sling at the upper end of the pole using boom or crane equipment and using a hydraulic jack at the base of the pole to lift it out of the ground. Excavation around the base of the wooden pole is only required in the event the base of the pole has been encased in hardened soil or man-made materials (e.g., asphalt or concrete), or where there is evidence that the pole has deteriorated to the point that it would splinter or break apart by the jacking and pulling operation.

Once the wooden pole is removed, the hole would be backfilled using imported fill in combination with fill that might be available as a result of excavation for the TSP installation. Backfill material would be thoroughly tamped and the filled hole would be leveled to grade with no depression or mound. Holes located in areas subject to pedestrian traffic would be filled level to the walking surface. The last two inches of fill would consist of a firmly packed temporary blacktop patch or equivalent material until permanent walkway (e.g., concrete sidewalks) repairs could be made.

1.8.5.5 Telecommunications Lines

Overhead Cable Installation

Overhead cable would be installed by attaching cable to the existing cross arms on 115 kV subtransmission structures. A truck with a cable reel would be set up at one end of the section to be pulled, and a truck with a winch would be set up at the other end. Cable would be pulled onto the cross arms with pull rope. Cable would then be permanently secured to the cross arms, and fiber strands in the cable from one reel would be spliced to fiber strands in the cable from the next reel to form one continuous path.

Installation of the overhead cable would occur at the same time as installation of the 115 kV subtransmission line segments. A traffic control service would be used during installation. The applicant would obtain the necessary encroachment permits prior to installation. No additional soil disturbance would occur as a result of overhead cable installation.

Underground Cable Installation

Underground portions of the telecommunications system would be placed in 5-inch-diameter conduits. The conduits would be routed from the MEER to both Calle Medusa and Nicolas Road through the 12 kV underground distribution duct banks. Along Nicolas Road, the underground cables would be routed through new conduit in franchise under the road surface. A segment of new conduit would also be installed in the ROW for the existing 115 kV subtransmission line to about 350 feet south. To install the new underground conduit, the applicant would dig trenches approximately 18-inches wide and 36-inches deep. Near Central Park Drive in Murrieta, the Auld Substation, and the Moraga Substation, underground cables would be routed through existing conduit.

1.8.6 Operation and Maintenance

1.8.6.1 Triton Substation

Components of the project would require routine maintenance and might require emergency repair for service continuity. The proposed substation would be unattended, and electrical equipment within the substation would be remotely monitored and controlled by an automated system (Station Automation 2) from Valley Substation. The applicant's personnel would conduct electrical switching and routine maintenance on site. Routine maintenance would include equipment testing, monitoring, and repair. The applicant's personnel would generally visit the substation two times per month.

1.8.6.2 115 kV Subtransmission Line Segments

The applicant regularly inspects subtransmission lines, vaults, and associated components. The inspections could lead to routine and preventive maintenance. There could also be emergency repair and maintenance performed for service continuity. The new 115 kV subtransmission lines would be maintained in a manner consistent with CPUC General Order 95, which requires the applicant to maintain 30 feet of vertical clearance between wires and roads accessed by vehicles and 25 feet of vertical clearance for areas not accessed by vehicles (pedestrian only). The subtransmission line loop-in and poles could occasionally require emergency repairs. Distribution line conduits would require only emergency repairs for service continuity. No additional personnel above normal staffing levels would be required to operate or maintain these subtransmission lines.

1.8.6.3 Telecommunications Lines

The telecommunications systems would require periodic routine maintenance, which would include equipment testing, monitoring, and repair as well as emergency procedures for service continuity. No new maintenance roads are anticipated. No additional personnel beyond normal staffing levels would be required to operate or maintain the telecommunications systems for the substation.

1.8.6.4 Temporary Overload Operating Procedures

The applicant's projections indicate that if the project is not operational as scheduled, overload conditions may occur in the Electrical Needs Area during the summer of 2010 if actual demand were to exceed the operating capacity of the transformers at Auld and Moraga Substations. To mitigate potential overload conditions that may occur prior to completion of the project, the applicant would implement temporary operating procedures within the Electrical Needs Area.

The operating procedures could include contracting emergency distributed generation, initiating demand response programs, dropping load, and implementing rolling blackouts. The applicant would also extend

the operational term of Canine Substation as needed. According to the applicant, continued operation of Canine Substation, however, would serve only as a temporary emergency measure and would not be sufficient to serve sustained future projected demand in the Electrical Needs Area.

1.8.6.5 Project Schedule and Personnel Requirements

The applicant anticipates that construction of the project would take approximately 8 months to complete. Crews typically work five 10-hour days per week. Depending on local permit requirements, weekend, evening, and night work may also be required due to the scheduling of system outages and construction schedules. Construction would commence following CPUC approval, final engineering, and procurement activities. Table 1.8-1 summarizes the length of time anticipated to construct each component of the project.

Table 1.8-1 Triton Substation Project Construction Timetable

Proposed Project Component	Scheduled Beginning	Duration
Triton Substation Construction	March 2010	8 months
115 kV Subtransmission Line Installation	March 2010	3 months
12 kV Distribution Duct Banks	April 2010	2 weeks
Telecommunications System	April 2010	3 months

Construction would be performed by the applicant's construction crews and/or by contractors under the direction of the applicant's field supervisors. Anticipated construction personnel and equipment are summarized in Table 1.8-2.

Table 1.8-2 Triton Substation Project Construction Personnel and Equipment Summary

Construction Phase	Duration	Number of Personnel	Equipment	Estimated Usage/Day (Hrs)
Triton Substation				
Site Management	Length of Construction	12	1 Office Trailer (electric)	8
Civil Construction- Below Grade/ Perimeter Wall Construction and Localized Fine Grading	100 Days	12	2 Crew Trucks (gasoline or diesel) 1 Dump Truck (diesel) 1 Cement Truck (diesel) 1 Bobcat (diesel) 1 Skip Loader (diesel) 1 Forklift (diesel) 1 Stake Truck (gasoline or diesel) 1 Grader (diesel) 1 Carry-all (gasoline) 1 Water Truck (gasoline)	2 6 3 3 4 4 2 4 2 6
MEER	10 Days	4	1 Stake Truck (gasoline or diesel) 2 Crew Trucks (gasoline or diesel)	2 2
Transformer Testing and Preparation	10 Days	15	1 Generator (diesel) 1 Lift Truck (gasoline) 2 Pickup Trucks (gasoline or diesel) 1 Boom Truck (diesel) 1 Processing Trailer (electric) 1 Forklift (diesel)	6 3 2 3 6 4

Table 1.8-2 Triton Substation Project Construction Personnel and Equipment Summary

Construction Phase	Duration	Number of Personnel	Equipment	Estimated Usage/Day (Hrs)
Electrical Construction	100 Days	10	1 Boom Truck (diesel) 1 Tool Trailer (electric) 3 Crew Trucks (gasoline or diesel) 1 Flat Bed (gasoline) 1 Crane (diesel)	3 3 2 2 4
Transformer Installation Crew	1 Day	6	1 Forklift (diesel) 2 Crew Trucks (gasoline or diesel) 1 Low-boy Hauler/Tractor Truck diesel)	6 2 6
Paving Crew	10 Days	6	1 Stake Truck (gasoline or diesel) 2 Crew Trucks (gasoline or diesel) 1 Tractor (diesel) 1 Bobcat (diesel) 1 Asphalt Paver (diesel) 1 Dump Truck (diesel) 1 Barbergreen (diesel) 1 Paddle Scraper (diesel)	4 2 3 4 4 3 8 6
Test Crew	120 Days	2	1 Test Truck (gasoline)	3
115 kV Subtransmission Line Installation				
Installing Steel Pole Footings	14 Days	6	1 Utility Truck (diesel) 1 Drill Rig (diesel) 1 Cement Truck (diesel)	10
Setting New Steel Poles	7 Days	10	1 Cement Truck (diesel) 1 Drill Rig (diesel) 1 Crane (diesel) 1 Crew Truck (diesel) 1 Utility Truck (diesel) 1 SUV (gasoline)	10
Installing Overhead Conductor	5 Days	10	1 Conductor Pulling Machine (diesel) 1 Cable Dolly (diesel) 1 Utility Truck (diesel) 1 Line Truck (diesel) 1 SUV (gasoline)	10
12 kV Distribution Duct Banks				
Distribution Duct Bank Construction	2 weeks	8	1 Crew Truck (gasoline or diesel) 1 Dump Truck (gasoline or diesel) 1 Backhoe (diesel)	1 6 6
Telecommunications				
Substation Communications Installation Crew	40 days	2	2 Vans (gasoline)	4
Overhead Communications Installation Crews	25 days	4	1 Bucket Truck 1 Reel Truck	8 8
Underground Trenching Crew	6 days	3	1 Flatbed Truck 1 Backhoe 1 Stakebed Truck 1 Crew Truck (gasoline or diesel)	1 8 2 2
Underground Cable Installation Crew	6 days	4	1 Bucket Truck (gasoline or diesel) 1 Reel Truck (gasoline or diesel)	8 8

1.8.7 Project Design Considerations

The applicant has incorporated into the project a number of structural elements and practices called project design features (PDFs) to avoid or minimize potential impacts on environmental resources. These PDFs are part of the project and are distinguished from mitigation measures for potentially significant impacts under CEQA. PDFs have not been identified for all resource areas. If the project is approved, the applicant will implement the PDFs listed in Table 1.8-3 regardless of whether potential significant impacts were or were not identified during the CEQA environmental analysis.

Table 1.8-3 Project Design Features (PDFs)

Aesthetics
PDF AES-1: Substation Setback. Final siting of the substation within the property is subject to final design. The substation walls will be set back a minimum of 195 feet from the centerline of Nicolas Road and 50 feet from the centerline of Calle Medusa.
PDF AES-2: Low-Profile Substation Equipment. The substation will be designed as a low-profile substation. Low-profile design substations have smaller and shorter equipment that also reduces the overall area of the substation to approximately 81 percent of high-profile design stations.
PDF AES-3: Substation Lighting Control. The substation lighting will be designed to be controlled by switch so that it can be turned on only when required for nighttime emergency repairs. The lighting will be directed downward and shielded to eliminate offsite light spill at times when the lighting might be in use.
PDF AES-4: Non-Reflective Finish. Equipment within the substation will have a dull, gray non-reflective finish to minimize reflectivity and to make it appear to recede into the backdrop. Non-specular subtransmission cable will be installed for the new subtransmission line loop-in to minimize conductor reflectivity. Tubular steel poles (TSPs) will be galvanized steel; the poles will be gray and non-reflective.
PDF AES-5: Substation Block Wall. The substation facility will be enclosed within an 8-foot high block wall for screening. The City of Temecula will approve the final design of the block wall, which will be consistent with community standards.
PDF AES-6: Substation Landscaping. The City of Temecula will approve the final design plan for landscaping around the perimeter of the substation facility. Landscaping will be designed to screen the substation and create a composition that relates to its surroundings. Landscaping will use native, drought-tolerant vegetation in accordance with city landscaping guidelines.
Biological Resources
PDF BIO-1: Pre-Construction Surveys. Pre-construction biological clearance surveys will be performed by a qualified biologist to minimize impacts on special status plants and wildlife species. A clearance survey is a one-time survey conducted within 30 days of any ground disturbing work to determine if any special status species are present within the construction area. Pre-construction clearance surveys will be conducted for burrowing owls within 30 days of any construction-related activities (see PDF BIO-7). A pre-construction nesting bird survey will be conducted within one week prior to ground disturbing activities should construction work occur during the general nesting season (February 15 – August 31) (see PDF BIO-6). If any special status plants or wildlife species are located during clearance surveys, a qualified biologist will be present during construction to monitor activities and implement appropriate measures to avoid any impacts on the special status species (e.g., flag and avoid, utilization of construction fencing to establish buffers). If avoidance cannot be maintained, the applicant will consult with appropriate agencies.
PDF BIO-2: Biological Resources Worker Environmental Awareness Program. The applicant will develop a Worker Environmental Awareness Program (WEAP), and all construction crews and contractors will be required to participate in WEAP training prior to starting work on the project. The applicant will maintain a record of all personnel trained. Training participants will receive a sticker for their hard hat. New construction personnel added following the initial training may be trained using a video recording of the live training. The WEAP training will include a review of the special status species and other sensitive resources that could exist in the project area, the locations of the sensitive biological resources, their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. Additionally, personnel will be trained on situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources be found during construction such as an active nest). If sensitive resources are found, the qualified biologist will provide guidelines for the personnel to follow

Table 1.8-3 Project Design Features (PDFs)

to avoid impacts on them. If it is determined that construction activity cannot avoid areas where sensitive biological resources are present, the qualified biologist will consult with the CDFG and/or USFWS, as necessary.
PDF BIO-3: Biological Monitors. Biological monitors will be used during construction within any areas found to contain sensitive biological resources. The monitors will be responsible for ensuring that impacts on special status species, their associated habitat, and/or unique resources are avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities need to be restricted to protect special status plant and wildlife species. These restricted areas will be monitored to ensure their protection during construction. If wildlife resources not considered to have special status are found within the project area during construction, the monitor will relocate the individual out of the project area.
PDF BIO-4: Avian Protection. All transmission, subtransmission, and distribution structures will be designed to be avian-safe in accordance with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee 2006).
PDF BIO-5: Best Management Practices. Construction and operation crews will use Best Management Practices (BMPs) in accordance with the Storm Water Pollution Prevention Plan (SWPPP). These measures will be identified in the SWPPP prior to construction and incorporated into the construction and maintenance operations. BMPs may address issues such as preserving existing vegetation, controlling sediment, managing stockpiles, and minimizing erosion.
PDF BIO-6: Nesting Birds. To minimize potential impacts on selected nesting special status birds, raptors, or other MBTA bird species, planned vegetation trimming and/or clearing will take place during the non-breeding season (September 1 – February 14), to the extent feasible. This will discourage the species from nesting within the work area. Trees, shrubs, or other vegetation occupied that would provide suitable structure for nesting would be removed. If vegetation trimming, vegetation clearing, and/or ground disturbance must take place during nesting season (February 15 – August 31), pre-construction nest surveys will be conducted by a biologist prior to trimming, clearing, and ground disturbance. Pre-construction nest surveys will be conducted to a distance of 500 feet from construction areas at the substation site and the subtransmission line loop-in and 100 feet from the centerline of the remainder of the telecommunications route. If the biologist finds an active nest within or adjacent to the construction area and determines that there may be impacts on the nest, the biologist will delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the type of construction activity. Only construction activities (if any) approved by the biologist will take place within the buffer zone until the nest is vacated. If nests are found and they cannot be avoided by project activities, or if work is scheduled to take place in close proximity to an active nest, the applicant will coordinate with the CDFG and USFWS and obtain verbal or written concurrence prior to moving the nest.
PDF BIO-7: Burrowing Owls. Pre-construction burrowing owl surveys will be conducted in all areas where there will be ground disturbance to determine presence or absence. A qualified biologist will survey within 500 feet of construction areas for the presence of any active owl burrows within 30 days prior to the onset of construction activities. If no burrows are found, no further action will be required. If unoccupied burrows are found, the qualified biologist will immediately close (collapse) them to prevent subsequent occupancy. Any active burrow found during survey efforts will be mapped on the construction plans. If nesting pairs are found, adequate buffers shall be established around occupied burrows. Any encroachment into the buffer area around the active burrow will be allowed only if the biologist determines that the proposed activity will not disturb the nest occupants. A 50 meter (160 foot) buffer will be maintained from active burrows during the non-breeding season. The nest site will be monitored by a qualified biologist, and when the owl is away from the nest, the biologist will either actively or passively relocate the burrowing owl. The biologist will then close (collapse) the burrow to prevent re-occupancy. If nesting activity is present at an active burrow, the active site will be protected until nesting activity has ended. A 75 meter (250 foot) buffer will be maintained from active burrows during the nesting season (February 15 – August 31). Construction can proceed when the qualified biologist has determined that fledglings have left the nest. If active burrows cannot be avoided, an appropriate relocation strategy would be developed in conjunction with the CDFG and may include: collapsing burrows outside of nesting season; and the use of exclusionary devices to reduce impacts to the burrowing owl.
PDF BIO-8: Special Status Plants. For any construction area that has the potential to support special status plants, protocol-level botanical surveys will be repeated prior to construction and during the blooming season. Alternatively, the applicant may choose to become a Participating Special Entity in the Western Riverside County Multiple Species Habitat Conservation Plan. The applicant will consult with the CDFG and/or USFWS if it is determined that any special status plant species may be impacted by the project. If possible, the species will be relocated to a suitable replacement site. This may involve transplantation and/or seed collection. Prior to establishing a replacement site, a qualified biologist will prepare a

Table 1.8-3 Project Design Features (PDFs)

monitoring and reporting plan that will be implemented. The plan will be approved by the CDFG and/or USFWS prior to implementation. The biologist will have full authority to suspend any operation which is, in the qualified biologist's opinion, not consistent with the monitoring and reporting plan.
PDF BIO-9: Lighting. Night lighting will be directed away from open spaces adjacent to the substation site in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Shielding will be incorporated in the final project design to ensure ambient lighting is not increased. If construction lighting is needed, directed shielding will be used.
PDF BIO-10: Noise. If the construction noise levels are expected to potentially cause substantial impacts on wildlife species, as determined by a qualified biologist, proposed noise-generating activities shall incorporate temporary features such as setbacks to minimize the effects of noise on areas adjacent to the selected site.
Cultural Resources
PDF CUL-1: Cultural Resources Worker Environmental Awareness Program Training. Prior to beginning construction, the applicant will develop WEAP training for any cultural resources encountered during construction. All construction crews and contractors will be required to receive the training prior to starting work on the project. The applicant will maintain a record of all personnel trained. Training participants will receive a sticker for their hard hat. New construction personnel added following the initial training may be trained using a video recording of the live training. The training will comply with all applicable federal, state, and local cultural resource guidelines and regulations, including California Health and Safety Code Sections 5097.98, 5097.99 and 7050, and CEQA Guidelines §§15064.5(e) and (f). The training will be developed with input from interested Native American groups. At a minimum, the training will cover: • Designation and responsibilities of archaeological monitors • The designation, responsibilities, and participation of Native American observers • Authority to halt construction if cultural resources or human remains are uncovered • Protection of human remains while awaiting recommendations from most likely descendants (as designated by the NAHC) • Treatment of human remains as recommended by Native American most likely descendants (as designated by the NAHC) • Data recovery plans in the event that avoidance of cultural resources is infeasible due to engineering constraints • Cultural resource avoidance and preservation • Reporting of monitoring, discoveries of cultural resources and/or human remains, and mitigation • Curation of archaeological material not associated with human remains
PDF CUL-2: Historic and Archaeological Monitoring. A qualified archaeologist will conduct full-time monitoring of all areas of the project where ground disturbing activities would occur. The archaeological monitor will have a working knowledge of the project area and will be competent to identify the range of cultural resources known to exist in the vicinity of the project. The monitor will have the authority to temporarily stop construction activities to inspect areas where ground disturbance has revealed potential cultural resources. The applicant will suspend construction activities until the archaeologist has inspected the discovery and determined any required or recommended treatment for the resource(s).
PDF CUL-3: Human Remains Stop Work. If human remains are encountered work will stop so that no further disturbance will occur until the Riverside County Coroner and a qualified archaeologist have assessed the remains, per California Health and Safety Code Section 7050.5. Further, pursuant to California Public Resources Code Section 5097.98(b), the remains will be left in place and free from disturbance and no work will occur within 15 meters of the human remains until the Riverside County Coroner has conducted a formal evaluation of the remains. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission will be contacted in accordance with the procedures outlined in CEQA Guideline §§15064.5(e). In compliance with California Public Resources Code Section 5097.98, remains determined to be Native American will be left in place and free from disturbance until a final decision as to their treatment and disposition has been made. Additionally, pursuant to the specific exemption set forth in California Government Code §6452(r), the location of Native American remains will not be disclosed to the public. The applicant will engage in consultations with the Native American Heritage Commission designated most likely descendant and consider his or her recommendations concerning the treatment of remains.

Table 1.8-3 Project Design Features (PDFs)

PDF CUL-4: Native American Consultation and Monitoring. The applicant will consult with all interested Native American groups, per the recommendation of the Native American Heritage Commission, prior to project construction. The tribes will be notified at least 30 days prior to ground-disturbing construction activities and invited to voluntarily observe ground-disturbing activities and offer any recommendations to the qualified archaeological monitor for the project. The archaeological monitor will order construction work to temporarily stop if cultural resources are identified during construction activities (PDF CUL-2). The qualified archaeological monitor will consult with the Native American observers in determining the potential significance of the resource and any required or recommended treatment. The most likely descendant as determined by the Native American Heritage Commission will be consulted for the treatment, recovery, and curation of any Native American ceremonial artifacts or items of cultural patrimony discovered.
PDF CUL-5: Paleontological Monitoring and Stop Work. A qualified paleontologist will conduct a ground survey, at least 30 days prior to any ground disturbance, to assess if there are any paleontological resources present on the ground surface. If paleontological resources are present on the ground surface, a preconstruction recovery of fossils will be conducted. A paleontological monitor will be present in areas where the Pauba Formation is at the surface or may be encountered in subsurface excavations. The paleontological monitor will have the authority to temporarily stop construction activities to inspect any potentially significant paleontological discovery and determine treatment to reduce potentially significant impacts on paleontological resources, including recovery of the resource.
Geology and Soils
PDF GEO-1: Seismic Design. For new substation construction, specific requirements for seismic design will be per the requirements of the Institute of Electrical and Electronics Engineers (IEEE) 693 *Recommended Practices for Seismic Design of Substations*.
PDF GEO-2: Geotechnical Study. Prior to final design of substation facilities and pole foundations, a geotechnical study will be performed to identify site-specific geologic conditions and potential geologic hazards. The geotechnical study will be performed at the substation site and in areas where poles will be placed. The study will be performed by professional civil or geotechnical engineers or engineering geologists licensed in the State of California and will provide appropriate design and construction recommendations that will be incorporated into the design of the project to reduce potential impacts from geologic hazards or soil conditions.
Hazards and Hazardous Materials
PDF HAZ-1: Phase I and Phase II Environmental Site Assessments. The applicant will perform a Phase I and Phase II ESA, as well as a geotechnical study (PDF GEO-2), prior to acquisition of new property to identify potential impacts on soil and groundwater in the areas to be graded or excavated as part of the project. Potential hazardous materials site(s) will be remediated, as required by jurisdictional agencies and as applicable.
PDF HAZ-2: Wood Pole Removal. The wood poles removed during the 115 kV subtransmission line installation will be reused by the applicant, recycled, or disposed of in a licensed Class I hazardous waste landfill.
PDF HAZ-3: (removed)
PDF HAZ-4: Traffic Control. The applicant will consult with local and state agencies, including the California Department of Transportation (Caltrans) as applicable, prior to initiation of construction activities that may affect traffic (e.g., equipment delivery necessitating lane closures, pole installation, stringing of conductors, trenching for the telecommunications lines), and will implement appropriate traffic controls to avoid or minimize impacts on traffic.
PDF HAZ-5: Fire Prevention and Response Practices. The applicant will implement standard fire prevention and response practices for construction and operation activities to minimize the risk of fire danger, and in the case of fire, provide for immediate suppression and notification. The fire prevention and response practices include but are not limited to spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, fire suppression equipment and training requirements, and vegetation clearing. In addition, vehicle parking, storage areas, stationary engine site and welding areas will be cleared of vegetation and flammable materials. Areas used for dispensing or storage of gasoline, diesel fuel or other oil products will be cleared of vegetation and other flammable materials and no smoking will occur in these areas. The substation will be grounded to prevent electric shock and surges that could ignite fires.
PDF HAZ-6: Vegetation Clearance. As applicable, the applicant will maintain vegetation clearance during the life of the Triton Substation to reduce the fire hazard potential. Regular maintenance is typically conducted once or twice a year and consists of mowing and hand clearing shrubs.

Table 1.8-3 Project Design Features (PDFs)

Hydrology and Water Quality
PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. The applicant will apply for a Construction Activities Storm Water General Permit (Order 99-08-DWQ). The requirement is part of the federal National Pollutant Discharge Elimination System (NPDES). As a requirement of the permit best management practices (BMPs) will be developed and set out within a Storm Water Pollution Prevention Plan (SWPPP). BMPs to be implemented may include, but are not limited to; the use of silt fencing, gravel barriers, and sand bags to protect wetlands and streams as well as minimize erosion and sediment from entering water bodies. Construction crew training will include the protection of water bodies from construction activities.
PDF HYDRO-2: Hazardous Materials Near Drainages. No oil or hazardous materials storage, staging, use or transfer shall occur within 50 feet of any surface water body, surface drainage, or storm-drain drop inlet. Work vehicles will receive regular engine maintenance and equipment checks to avoid and detect leaks. Construction crew training will include measures to prevent the release or accidental spillage of solid waste, garbage, construction debris, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, and other wastes into water bodies or water sources.
PDF HYDRO-3: Material Safety Data Sheets. Material Safety Data Sheets will be made available to all site workers for cases of emergency.
PDF HYDRO-4: Spill Prevention, Control, and Countermeasure (SPCC) Plan. The applicant will prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan that includes the hazardous/non-hazardous materials used during operation.
PDF HYDRO-5: Dewatering Plan. If the site-specific geotechnical study (PDF GEO-2) indicates that groundwater is expected to be encountered during construction, the applicant will prepare and implement a dewatering plan that will be included in the construction SWPPP.
PDF HYDRO-6: Jurisdictional Areas of Streams and Drainage. No infrastructure associated with the project will be situated within jurisdictional areas of streams and drainages (e.g., channels and banks). Although the proposed telecommunications lines will not cross under any water bodies, poles located on nearby land areas of waterways will be engineered to withstand stresses associated with their proximity to the waterways.
PDF HYDRO-7: Facilitate Existing Drainage. The substation and poles will be designed and engineered to facilitate existing drainage patterns to minimize or avoid any potential impacts from erosion and siltation.
PDF HYDRO-8: Drainage Control Features. Drainage control features will be installed where appropriate, as well as other stormwater protection measures included as part of the SWPPP.
PDF HYDRO-9: Substation Stormwater Drainage. The City of Temecula will approve final design of site drainage, which will be subject to the conditions of the grading permit. Stormwater drainage inside the substation wall will be designed to control sediment and minimize erosion. The internal runoff will be released from the substation by means of surface drainage structures. Drainage from the property will be collected and controlled by surface improvements. The applicant will direct stormwater runoff to the subsurface drainage system.
PDF HYDRO-10: Existing Stormwater Drainage Systems. Substation facilities will be engineered to use existing stormwater drainage systems, including but not limited to Santa Gertrudis Creek or County of Riverside stormwater collection facilities, as applicable. Stormwater discharge to existing drainages shall meet required volumes and quality as prescribed by appropriate state and local authorities.
Land Use and Planning
PDF LU-1: Public Notification and Complaint Procedures. The applicant will develop and implement the following public notification and complaints procedures: • Fifteen days prior to construction of the Triton Substation, the applicant will provide notice to property and business owners located within 300 feet of the substation site and within 300 feet of the construction activity to be conducted along Nicolas Road, including staging areas and access roads. The notice will describe the location and duration of construction activities, including activities associated with telecommunications lines installation. The applicant will provide the notice by mail and newspaper advertising. • A toll-free number will be established and listed on the notice to receive public concerns or complaints regarding construction activities, including but not limited to dust and noise. The applicant will establish procedures to document,

Table 1.8-3 Project Design Features (PDFs)

investigate, evaluate, and resolve all project-related complaints. • Procedures for the resolution of legitimate complaints will include suspension of construction activities until other satisfactory measures can be implemented.
Noise
PDF NOI-1: Construction Equipment Working Order. Construction equipment will be maintained per manufacture's recommendations to ensure equipment is adequately muffled. A vehicle log will be kept on site to ensure equipment maintenance schedule meets manufacture's standard. Vehicle and equipment idling time will not exceed 5 minutes unless it is necessary for safety reasons or to complete a function of the vehicle (e.g., concrete agitation, or for hydraulic power to a crane or fuel pump).
PDF NOI-2: Hearing Protection for Workers. Workers will be provided appropriate hearing protection, if necessary.
PDF NOI-3: Low-Level Noise Equipment. During final engineering, equipment will be selected and/or barriers will be installed to achieve a level of less than 60 dBA at the closest sensitive receptor, as available and practicable.
Recreation
PDF REC-1: Public Notification. In the event short-term restrictions on recreation use of Veterans Park or other parks; existing bike lanes; bike paths; or trails are necessary during project construction, the applicant will notify the public in coordination with Riverside County, the City of Temecula, and the City of Murrieta, as applicable.
Transportation/Traffic
PDF TT-1: Traffic Control Services. Traffic control services will be used for equipment, supply delivery, pole installation, conductor stringing, and installation of the telecommunications lines following guidelines in the Work Area Traffic Control Handbook (WATCH) 2009 Manual (American Public Works Association) and in accordance with the California Vehicle Code.
PDF TT-2: Incorporate Protective Measures. Any construction or installation work requiring the crossing of a local street, highway, or rail line will incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity.
PDF TT-3: Traffic Management. The applicant will follow guidelines outlined in the WATCH Manual, the California Vehicle Code, and City of Temecula and other local requirements. The applicant will provide traffic control services to ensure an adequate flow of traffic by providing sufficient signage, flagmen, and escort vehicles to alert roadway users of construction zones; notification of emergency responders and the public of planned work activities that could disrupt traffic on roadways or other transportation routes; scheduling roadway work during periods of minimum traffic flow; and specific controls for traffic around schools. Additionally, the applicant shall implement the following measures: • Truck traffic shall use designated truck routes when arriving to and leaving from project areas. • Though some construction worker commutes may be required during peak traffic hours, the majority of construction workers will begin work at 6:00 AM and end at 3:00 PM. • Though occasional construction traffic during peak traffic hours may be necessary, the majority of construction traffic shall be scheduled for off-peak hours.
PDF TT-4: Repair Damaged Streets. Any damage to local streets will be repaired, and streets will be restored to their pre-project condition.
Utilities and Service Systems
PDF UTIL-1: Notice of Termination. The applicant will submit the Notice of Termination upon reaching stabilization of the project area per the Construction Activities Storm Water General Permit Order 99-08-DWQ.
PDF UTIL-2: Recycle Waste Materials. Materials generated by removal of the existing lines and poles will be processed into roll-off boxes and sent to a commercial metal-recycling facility in where recyclable or salvageable items (e.g., conductor, steel, hardware) are received, sorted, and baled, then sold on the open market. The applicant will categorize waste materials that cannot be recycled to assist with proper final disposal. Soil from drilling, site grading, or excavation for new pole foundations will be screened and separated for use as backfill material at the site of origin to the maximum extent possible.

1.9 Surrounding Land Uses and Setting

The Triton Substation project area is located within the Cities of Temecula and Murrieta and the County of Riverside (Figure 1-2). The main project elements, including the substation, the 12 kV distribution duct banks, and the subtransmission line loop-in, are located on or adjacent to the Triton Substation site (main project area).

The substation site is a 10-acre area of land owned by the applicant, located on the southeast corner of Nicolas Road and Calle Medusa in the City of Temecula (Figure 1-2). Some structures currently exist on the site, but otherwise the parcel is largely unimproved. The site is relatively flat, although near the foot of some gently sloping terrain, with some trees and sparse, scrubby vegetation. The site is bounded by Nicolas Road and relatively undeveloped, rural land to the north and Calle Medusa and a parcel with a church complex to the west. Lightly developed, rural land borders the site to the east, and a low-density residential area borders the site to the south.

The subtransmission line loop-in, consisting of two new 115 kV line segments, would extend approximately 1,300 feet from the Triton Substation site west along Nicolas Road to the existing Valley-Auld-Pauba subtransmission line. The distribution duct banks for the substation would be located on the substation site, to the north and west of the substation facility.

The telecommunications line would extend from the Triton Substation site approximately 4 miles south to the Moraga Substation, located in the City of Temecula, and approximately 5 miles north through the City of Temecula, unincorporated Riverside County, and the City of Murrieta to the Auld Substation, located in Murrieta (Figure 1-2).

The northern extent of the telecommunications line would be located in an existing ROW that passes through areas of very low to medium density residential development in the City of Temecula and into unincorporated Riverside County. Going further north from the border between Temecula and Riverside County, this ROW passes through areas of low to medium density residential development and relatively undeveloped conservation areas, through an area developed with industrial, business park, and commercial retail uses, and approximately 1,000 feet to the east of the French Valley Airport and into the City of Murrieta. In the City of Murrieta, the ROW passes north through areas designated for business park uses, and then west through areas with a rural residential designation, leading to the Auld Substation.

The southern extent of the telecommunications lines would be located in an existing ROW in Temecula that passes through residential areas ranging from very low to high density, open space (including the Temeku Hills Golf Course), and along the boundary of the Temecula United Methodist Church, before leading to the Moraga Substation.

1.10 Other Public Agencies Whose Approval is Required

The applicant has submitted an application for a Permit to Construct (Application No. A.08-11-019) from the CPUC pursuant to Public Utilities Code Section 1001 and General Order 131-D. Although the CPUC has exclusive authority to issue a Permit to Construct, CPUC General Order 131-D, Section III C requires that, “the utility to communicate with, and obtain the input of, local authorities regarding land use matters and obtain any non-discretionary local permits.” The following required permits and approvals have been identified for the project. Additional permits and approvals may also be required.

- **City of Temecula, Grading Permit.** The City of Temecula requires a Grading Permit for all construction activities requiring grading to ensure that soil is not stripped and removed, impacting aesthetic values within the city and leaving land susceptible to erosion, subsidence, faulty drainage, and sediment deposition. The Grading Permit requires submission and approval of an Erosion and Sediment Control Plan, a Soils Report, a Hydrology Study, a Water Quality Management Plan, and an onsite Construction Security Worksheet.
- **City of Temecula, Building Permit.** Prior to issuing the Building Permit, the City of Temecula Development Department will review and plan-check the project to ensure compliance with City codes, ordinances, and policies. As part of the review and plan-check process and prior to issuing the Building Permit, project design must be approved including landscaping design, wall design, and plumbing plans for the onsite restroom facility.
- **City of Temecula, Encroachment Permit.** The City of Temecula requires an Encroachment Permit for utility trenching. As part of the application for the Encroachment Permit, the applicant must submit construction drawings and a traffic control plan for any work that would take place in public streets.
- **San Diego Regional Water Quality Control Board, National Pollutant Discharge Permit.** Construction of the project and alternatives would disturb a surface area greater than 1 acre and the applicant would be required to obtain a NPDES permit from the SDRWQCB. As part of this permit, a SWPPP would be developed and implemented.

2.0 Environmental Determination

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklists on the following pages.

☐ Aesthetics	☐ Agriculture	☐ Air Quality & Greenhouse Gases
☐ Biological Resources	☐ Cultural Resources	☐ Geology & Soils
☐ Hazards & Hazardous Materials	☐ Hydrology & Water Quality	☐ Land Use & Planning
☐ Mineral Resources	☐ Noise	☐ Population & Housing
☐ Public Services	☐ Recreation	☐ Transportation & Traffic
☐ Utilities & Service Systems	☐ Mandatory Findings of Significance	

2.2 Determination

Determination:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or

mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	11/18/2009 Date
Iain Fisher, Project Manager Energy Division	Agency: California Public Utilities Commission

3.0 Evaluation of Environmental Impacts

This Initial Study (IS) provides an analysis of the environmental issues listed below. These issues are the same as those identified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The list of issues includes greenhouse gases as proposed by the California Governor's Office of Planning and Research (OPR 2009).

3.1	Aesthetics	3.9	Land Use and Planning
3.2	Agriculture	3.10	Mineral Resources
3.3	Air Quality and Greenhouse Gases	3.11	Noise
3.4	Biological Resources	3.12	Population and Housing
3.5	Cultural Resources	3.13	Public Services
3.6	Geology and Soils	3.14	Recreation
3.7	Hazards and Hazardous Materials	3.15	Transportation and Traffic
3.8	Hydrology and Water Quality	3.16	Utilities and Service Systems
		3.17	Mandatory Findings of Significance

The Proponent's Environmental Assessment (PEA), filed November 21, 2008, provided a basis for the analysis presented in the IS. Much of the information in Chapter 1, Background Information, was incorporated directly from the PEA. The full PEA is available for public review at http://www.cpuc.ca.gov/Environment/info/ene/triton/Triton.html.

Additional project information was submitted by the applicant after the PEA filing date in response to California Public Utilities Commission data requests. The data requests and responses occurred over a period of time that began on November 21, 2008 and ended November 5, 2009. The data responses have been incorporated into the IS and will be available in the Administrative Record prepared at the completion of the CEQA process.

References

California Governor's Office of Planning and Research (OPR). 2009. CEQA Guidelines Sections Proposed to be Added or Amended. April 13.

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3.1 Aesthetics

Table 3.1-1 Aesthetics Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Setting

Existing Visual Setting

The substation site, the new subtransmission line loop-in route, and the existing Canine Substation are located in a very low density residential area on the floor of Nicolas Valley along the Santa Gertrudis Creek. Nicolas Valley measures approximately 0.25 miles wide and is characterized by hills that rise approximately 80 feet above the valley floor to the south and 45 feet above the valley floor to the north.

The substation site is an approximately 10-acre property at the southeast corner of the intersection of Nicolas Road and Calle Medusa. The subtransmission line loop-in would run from the substation site along the south side of Nicolas Road for approximately 0.25 miles to the existing Valley-Auld-Pauba 115 kV subtransmission line.

Minor upgrades would be made to equipment within existing substation facilities at six substations in Riverside County. Two telecommunications lines would be installed as part of the project. One of the telecommunications lines would be routed out of the substation from a 15-foot tall pole inside the southwest corner of the substation and run on new overhead structures along the south side of Nicolas Road to the existing 115 kV Valley-Auld-Pauba subtransmission line. From there, it would be routed, mostly overhead on existing structures, about 5 miles north along the existing subtransmission line through Temecula and unincorporated Riverside County to the Auld Substation in Murrieta. The second telecommunications line would exit the substation and continue in new underground conduit along Nicolas Road to the existing 115 kV Valley-Auld-Pauba subtransmission line and then in the existing subtransmission line right of way (ROW) to about 350 feet south of Nicolas Road, where it would ascend in a new riser on an existing pole. From there it would be routed, mostly overhead on existing structures, about 4 miles south along the existing subtransmission line to the Moraga Substation in Temecula. The telecommunications lines traverse a mixture of rural and suburban areas.

The City of Temecula's Community Design Element of the general plan designates nine scenic viewsheds from which views are protected (City of Temecula 2005a). The viewsheds are shown in Figure 3.1-1. The Community Development Department may require site redesign or place height limits on projects that would have the potential to block views from these locations. The substation site would be approximately 1.75 miles southwest of the closest designated viewshed, and the protected view is oriented away from the substation site in a north-northeasterly direction. The general plan designates open space in the vicinity of the substation site along Santa Gertrudis Creek and Nicolas Road; this route is also designated as a community trail and a local trail.

The City of Temecula's Land Use Element of the general plan defines three Rural Preservation Areas in recognition of their special economic and aesthetic importance to the city. The substation site and the new subtransmission line loop-in are within the Nicolas Valley Rural Preservation Area (City of Temecula 2005b). The city's objectives for the Nicolas Valley Rural Preservation Area are to promote continued rural development of large lot, Very Low density residential units; provide rural infrastructure services; and conserve open space surrounding Santa Gertrudis Creek.

The Riverside County General Plan does not identify scenic viewsheds within the county. The Land Use Element of the Riverside County General plan does, however, include policies to preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public (Policy LU 13.1) (County of Riverside 2003). Additionally, the Circulation Element identifies Interstate 15 (I-15, the Corona Freeway) as eligible state and county scenic highway corridors. I-15 is located approximately 3 miles southwest of the substation site and subtransmission line loop-in.

The area in the immediate vicinity of the substation site is a pocket of rural residential development that extends about 1.3 miles along Nicolas Road and is about 0.7 miles wide. This area is characterized by 3- to 5-acre parcels that are either undeveloped or occupied by single-family residences. The substation site area has an informal and quasi-rural character because of the low density of development; the general absence of sidewalks, curbs, and gutters associated with suburban subdivisions; and the small-scale agriculture on many of the parcels.

The substation would be visible in the area immediately surrounding portions of the upper Santa Gertrudis Creek. The rolling hill topography and dispersed vegetation would limit the visibility of the substation beyond approximately one-quarter mile from the substation.

Other development in the vicinity of the substation site includes residential subdivisions located approximately one tenth of a mile to the south, a quarter mile to the northwest, and three quarters of a mile to the north. Grading has begun on the planned large residential subdivision Roripaugh Ranch, approximately half a mile north of the substation site.

The substation site would be located within close proximity to two churches and the Canine Substation. The parcel to the immediate west of the substation site on the other side of Calle Medusa is occupied by Grace Presbyterian Church. This church complex includes a church sanctuary, an 11,000-square-foot multipurpose building, and a landscaped parking lot. Along the church property boundaries on Calle Medusa and Nicolas Road, there are sidewalks, curbs and gutters.

Reference: *Figure CD-1, Community Design Plan, City of Temecula General Plan, Triton Substation Preliminary Environmental Assessment,* Southern California Edison, November 21, 2008

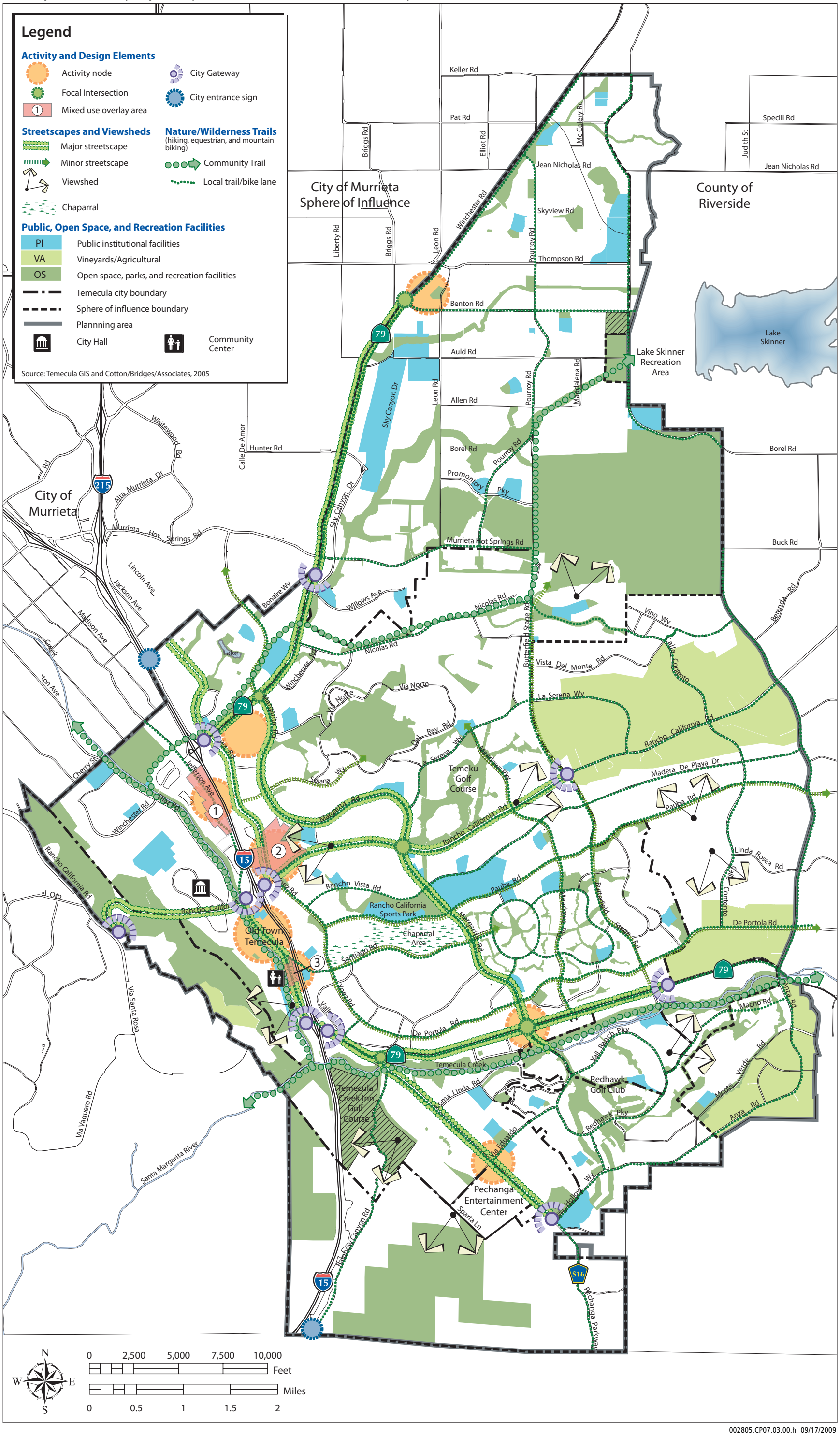

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Figure 3.1-1

City of Temecula Community Design Plan

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The parcel to the west of the Grace Presbyterian Church is occupied by another church complex, the Calvary Baptist Church. A small area in the parking lot in the northeast corner of the Calvary Baptist Church property is the site of the Canine Substation. Canine Substation is a small substation surrounded by a block wall that occupies an area that is approximately 28 feet by 30 feet.

Current conditions on the substation site are depicted in Figures 3.1-2 and 3.1-3. As these photographs indicate, the site has a generally open appearance with sparse, randomly spaced patches of shrubbery and trees and few structures. The site slopes gently upward from Nicolas Road to the foot of the bluff at the site's southern edge. The most distinctive vegetation on the site consists of thick clusters of non-native trees along the site's southern edge.

One mobile home and a shed are on the southern border of the substation site property directly east of Calle Medusa and adjacent to the base of a bluff that rises up to the south. Another mobile home is also on the southern border of the substation site property approximately one tenth of a mile east of Calle Medusa. There is a circular grain bin near the eastern border of the substation site property about midway between the northern and southern boundaries. The mobile homes are unoccupied and partially obscured by vegetation. On the southern half of the adjacent properties east of the substation site are a house and ancillary building, a mobile home, and a shed; these structures are also unoccupied.

The existing Valley-Auld-Pauba 115 kV subtransmission line is located approximately 0.25 miles west of the substation site and runs perpendicular to Nicolas Road. Within Nicolas Valley, the Valley-Auld-Pauba line is carried primarily on wooden poles with a tubular steel pole (TSP) at the crossing of Nicolas Road.

The new subtransmission line would be most readily visible in the corridor along Nicolas Road between the substation and the existing Valley-Auld-Pauba 115 kV subtransmission line (Figure 3.1-4) and immediate nearby areas. It would be a double-circuit line carried on seven to eight new 85-foot high TSPs from the substation to the Valley-Auld-Pauba 115 kV subtransmission line. Nine wooden poles, 50- to 55-foot high, currently supporting electrical distribution lines on the south side of Nicolas Road would be removed, and the distribution lines would be relocated to the new TSPs. Topography and vegetation would restrict the visibility of the line to areas that are within approximately half a mile.

Key Observation Points

Select Key Observations Points (KOPs) represent typical views of the project components and views from sensitive locations. These KOPs are used to help establish the baseline for the existing visual resources. The project's potential to change the visible landscape and likely viewer responses to those changes are compared using simulations of the project components prepared for each KOP. The location of each KOP with respect to the project area is shown in Figure 3.1-5.

KOP 1: Liefer Road (Figure 3.1-2)

KOP 1 is a view toward the substation site, from a point on Liefer Road, immediately to the north of the intersection of Liefer Road and Nicolas Road. (Liefer Road becomes Calle Medusa south of Nicolas Road.) This viewpoint is located directly north of the substation site and provides a full view of the substation footprint looking south. This view is representative of the hillside rural residential properties along Liefer Road and the surrounding residential area. This also represents the views seen by motorists along Liefer Road and Nicolas Road.

At present, the visual character of this view is rural with evidence of more suburban development in the background. The site itself has an open, rural appearance. The site is flat with randomly dispersed patches

of vegetation. Two of the structures on site are fully visible from this vantage; the other structures are partially obscured by vegetation. Calle Medusa, which forms the western boundary of the site, has a paved sidewalk on the west side of the street. Existing distribution lines run alongside the sidewalk. Background views are dominated by rolling hills with four suburban style private residences and a row of manicured trees visible along the ridgeline.

KOP 2: Calle Medusa (Figure 3.1-3)

KOP 2 is a view from Calle Medusa approximately 10 yards south of the southeastern corner of the substation property looking northeastward. This viewpoint shows the substation site from a slight elevation, which allows a more complete view of the substation components. This viewpoint represents the views of residents on the hill to the south and southwest of the substation site, motorists along Calle Medusa, and drivers exiting from the parking lot at the southern end of the church property on the west side of Calle Medusa.

The view from KOP 2 has an open, rural residential character. Development is generally consistent with the rural character of the area including scattered single family residences and associated agricultural features. The viewshed is bisected by roadways and electrical distribution lines carried on wooden poles. A portion of the church property including landscaping and sidewalk can be seen across Calle Medusa on the left-hand side of the photograph. Vegetation appears relatively dense in the foreground with more randomly spaced and sparse shrubbery in the middleground view. There are denser clusters of trees visible in the background. The background views also include the rolling hills along the northern boundary.

KOP 3: Nicolas Road (Figure 3.1-4)

KOP 3 is a view from Nicolas Road, west of the substation site, looking east along the proposed alignment of the 115 kV subtransmission line loop-in. This shows representative views from Nicolas Road and the surrounding area. The view is dominated by infrastructure and landscaping associated with the two church complexes and is bisected vertically by Nicolas Road and the large roadway shoulder. An existing electrical distribution line runs parallel to Nicolas Road; numerous electrical distribution lines cross the road as well. This church property landscaping partially obscures the parking lots adjacent to Nicolas Road.

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on visual resources. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF AES-1: Substation Setback

PDF AES-2: Low-Profile Substation Equipment

PDF AES-3: Substation Lighting Control

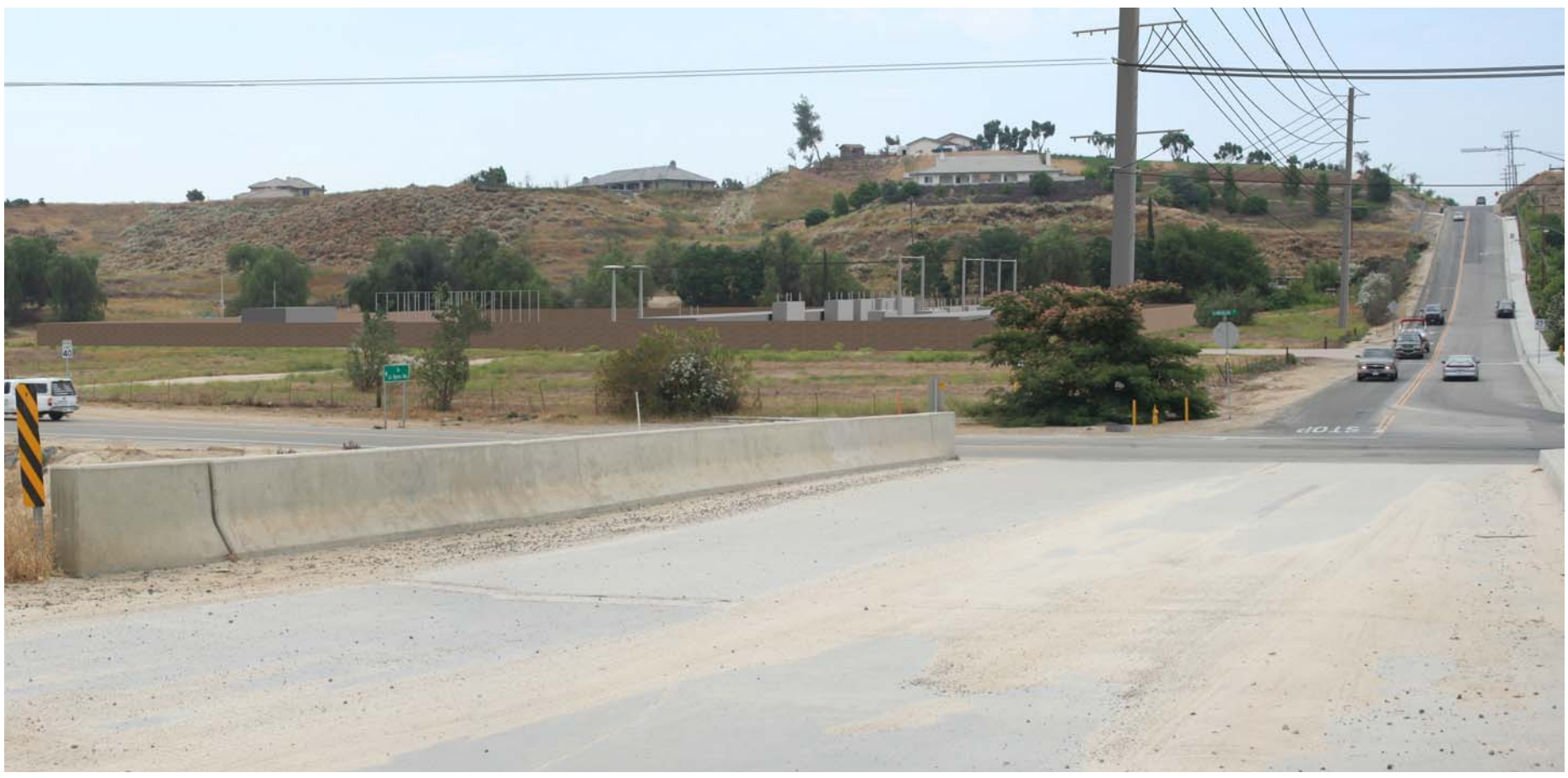
PDF AES-4: Non-Reflective Finish

PDF AES-5: Substation Block Wall

PDF AES-6: Substation Landscaping

Reference: *Figure 4.1-2, KOP 1, City of Temecula General Plan, Triton Substation Preliminary Environmental Assessment,* Southern California Edison, November 21, 2008

a. **KOP 1 -** Existing view of the Triton Substation site looking southeast from Liefer Road at a point immediately north of the intersection with Nicolas Road.



b. **KOP 1 -** Simulated view of the Triton Substation site looking southeast from Liefer Road at a point north of the intersection with Nicolas Road. This was a preliminary simulation that did not include the third tubular steel pole that is now proposed between the two shown. Figure 3.1-3 shows all three poles from a different perspective.

The simulated views of the substation were prepared based on preliminary engineering. Since the preparation of the simulations, the minimum setback requirements have been reduced; therefore, the substation depicted in the simulations may appear further from both Nicolas Road and Calle Medusa than it would appear if constructed.

Figure 3.1-2

KOP 1 and Visual Simulation

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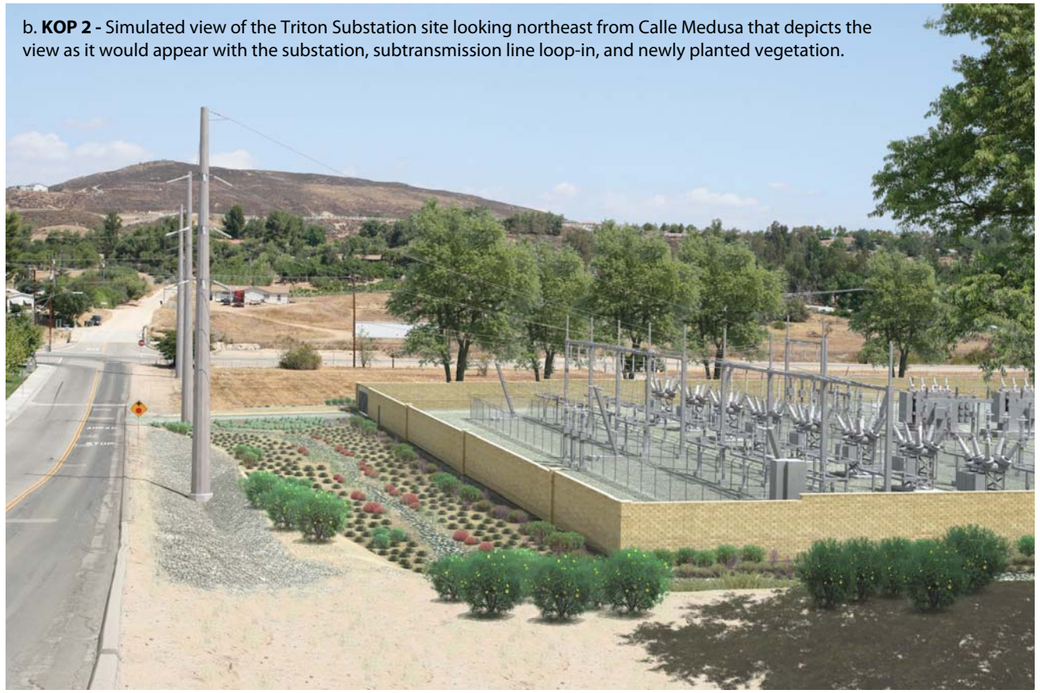
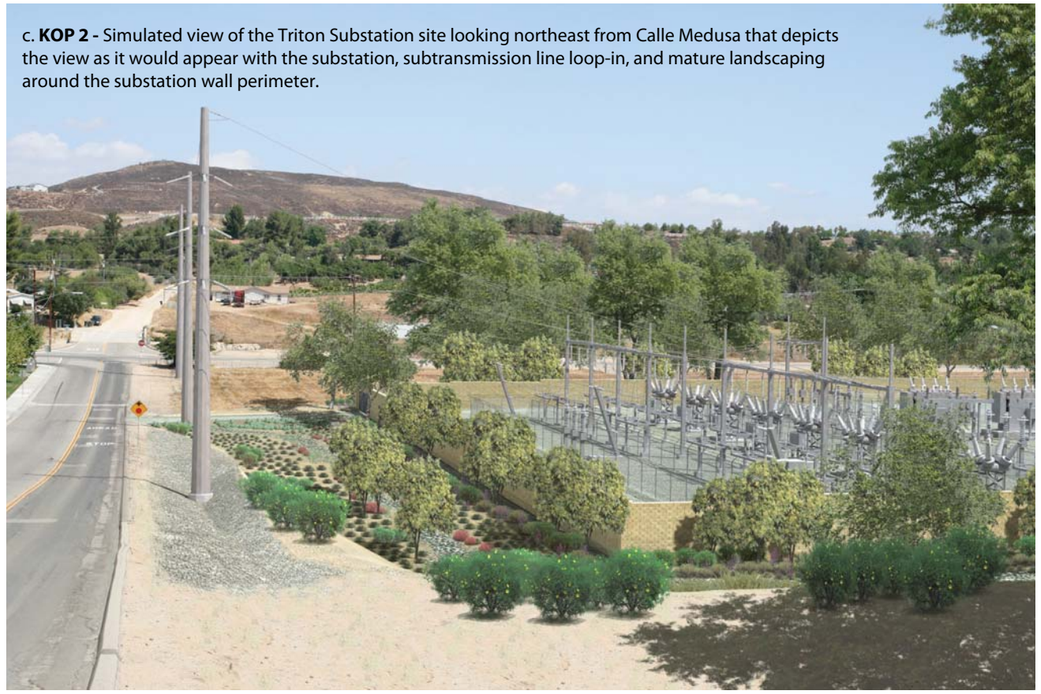
a. **KOP 2 -** Existing view of the Triton Substation site looking northeast from Calle Medusa.

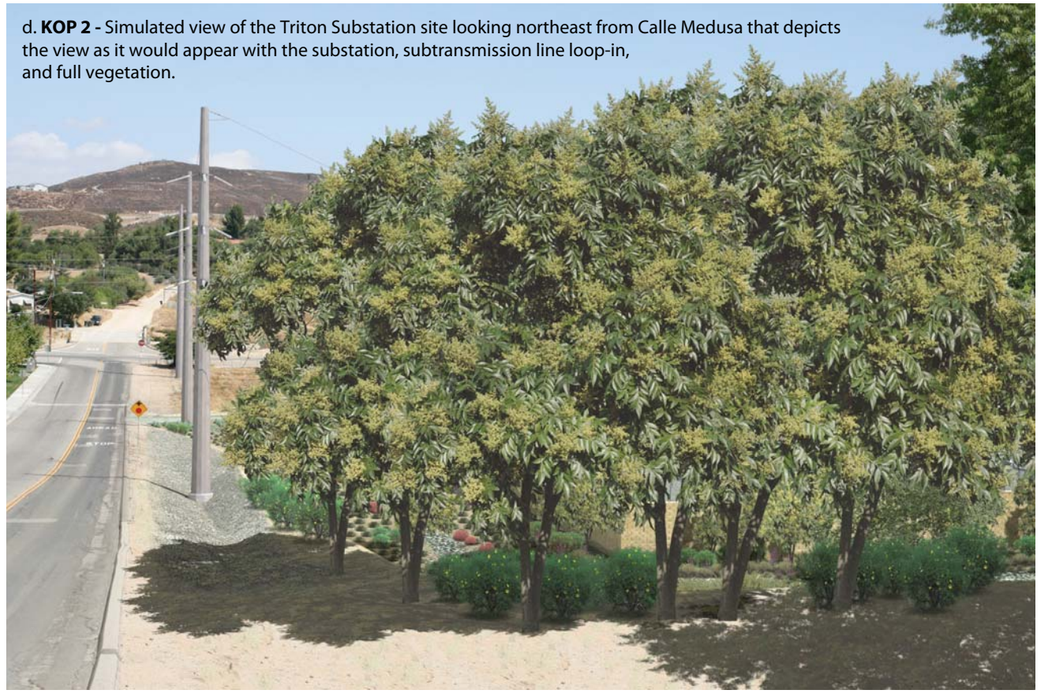
b. **KOP 2 -** Simulated view of the Triton Substation site looking northeast from Calle Medusa that depicts the view as it would appear with the substation, subtransmission line loop-in, and newly planted vegetation.



c. **KOP 2 -** Simulated view of the Triton Substation site looking northeast from Calle Medusa that depicts the view as it would appear with the substation, subtransmission line loop-in, and mature landscaping around the substation wall perimeter.



d. **KOP 2 -** Simulated view of the Triton Substation site looking northeast from Calle Medusa that depicts the view as it would appear with the substation, subtransmission line loop-in, and full vegetation.



The simulated views of the substation were prepared based on preliminary engineering. Since the preparation of the simulations, the minimum setback requirements have been reduced; therefore, the substation depicted in the simulations may appear further from both Nicolas Road and Calle Medusa than it would appear if constructed.

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Figure 3.1-3 **KOP 2 and Visual Simulations**

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Reference: *Figure 4.1-4, KOP 3, City of Temecula General Plan*, *Triton Substation Preliminary Environmental Assessment,* Southern California Edison, November 21, 2008

a. **KOP 3 -** Existing view looking east from the intersection of Nicolas Road and Calle Golibri west of the Canine Substation.

b. **KOP 3 -** Simulated view as it would appear from the intersection of Nicolas Road and Calle Golibri west of the Canine Substation.

Figure 3.1-4

KOP 3 and Visual Simulation

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Aerial photo source: http://www.bing.com/maps, ©2009 Microsoft Corp.

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Figure 3.1-5

Key Observation Points (KOPs)

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3.1.2 Environmental Impacts and Mitigation Measures

Methodology

This aesthetics and visual resource analysis follows the methodology described in the Federal Highway Administration's (FHWA) Visual Impact Assessment for Highway Projects (FHWA 1988). The FHWA process, in widespread use for evaluation of project visual impacts, includes the following steps to assess potential impacts on visual resources:

1. Establish a visual environment for the project by identifying "landscape unit(s)" in which the project is located. Landscape units are areas with reasonably homogeneous views that contain continuous, similar, or interrelated visual elements.
2. Assess the visual resources of the project area by describing the visual character of the project area and assessing the visual quality. Visual character is described in terms of the four visual pattern elements: form, line, color, and texture. Visual quality is assessed based on the vividness, intactness, and unity of views.
3. Describe the potentially affected viewers in terms of viewer exposure to the project and the levels of viewer sensitivity. Viewer exposure considers the distance of the viewer to the project, the position of the viewer in terms of relative elevation, the direction of the view, approximate numbers of viewers and the duration or frequency of views. Viewer sensitivity describes the viewer's expectation of a view based on viewer activity and awareness and any local or cultural significance of the site.
4. Develop simulations to predict the potential visual impact of the project. Visual impact is a function of the projected visual resource change and anticipated viewer response.

The FHWA assessment methodology was applied for the Triton Substation project to establish a baseline environmental setting, identify and describe the project viewers, and select Key Observations Points (KOPs) from which to estimate the level of contrast that would be introduced by the project. The first three steps listed above were conducted in order to identify landscape areas that constitute logical units for analysis and to describe the existing visual resource setting and viewers. For the purposes of this analysis, the area encompassing the floor of the valley along Santa Gertrudis Creek as well as the hillsides that define the valley is considered to be the landscape unit in which the substation site is located.

KOPs were used to represent both typical views of the site and views from sensitive locations. The project's potential to change the visible landscape and likely viewer responses to those changes were then assessed using simulations of the project components prepared for each KOP. The simulations were systematically compared against the baseline conditions to determine the nature and degree of potential impacts on visual resources. Levels of impacts are assessed by comparing FHWA rankings of existing views with rankings based on prepared simulations. The impact assessment also takes into account the number of viewers, the duration of views, and viewer expectation. Viewer expectation takes into account viewer activity, and takes into account any federal, state, or local regulations that protect visual resources in the area.

Vividness, unity, and intactness are dimensions of landscape quality that are taken into account for the FHWA landscape evaluation and visual impact assessment. Vividness is defined as the memory of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern. Intactness is defined as the integrity of the visual order in the natural and human-built landscape, and the extent to which the landscape is free from visual encroachment. Unity is

defined as the degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern, and the term refers to the compositional harmony or degree of inter-compatibility between landscape elements.

The substation would be located in an area the City of Temecula has designated as a Rural Preservation Area, so expectations for above average views are high. Viewers potentially impacted by the project include residential viewers, parishioners at Grace Presbyterian and Calvary Baptist churches, and motorists traveling along Nicolas Road and Calle Medusa/Liefer Road. Residential viewers would have more frequent, extended views of the project. As such, residential viewers are more sensitive to seeing visual contrasts than motorists and church parishioners. Church parishioners would have regular and routine views of the substation that would be short in duration. Motorist views would be temporary in duration.

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

NO IMPACT. Initial build-out of the project as a 56 MVA substation and future expansion to a 112 MVA substation, including construction of the subtransmission line loop-in and telecommunications lines and decommissioning of the Canine Substation, would not impact a designated scenic vista. Of the nine designated scenic viewsheds in the City of Temecula, the closest to the substation site is approximately 1.75 miles northeast, and it is oriented away from the project to the north-northeast. The project would not adversely affect any scenic vista within the City of Temecula.

The Riverside County General Plan does not identify scenic viewsheds within the county, although it does identify I-15 as eligible state and county scenic highway corridors. I-15 is located approximately 3 miles southwest of the substation site and subtransmission line loop-in. There would be no impact on a scenic vista from I-15 because the substation would be sited on the floor of the Nicolas Valley with hills along the southern edge rising approximately 80 feet, and the substation and subtransmission line loop-in would not be visible from it.

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

NO IMPACT. Initial build-out of the project as a 56 MVA substation and future expansion to a 112 MVA substation, including construction of the subtransmission line loop-in and telecommunications lines and decommissioning of the Canine Substation, would have no impact on scenic resources within view of a state scenic highway. The California Department of Transportation maintains a listing of designated and eligible state scenic highways (Caltrans 2007). There are no designated state scenic highways that would have views of the Triton or Canine Substations. The nearest eligible state scenic highway is I-15, located approximately 3 miles southwest of the substation site and subtransmission line loop-in. Because the project would be sited on the floor of the Nicolas Valley with hills along the southern edge rising approximately 80 feet, the substation and subtransmission line loop-in would not be visible from I-15.

Installation of the telecommunications lines would extend beyond the Nicolas Valley but would not substantially damage scenic resources within a state scenic highway. The majority of the telecommunications lines would be underbuilt on existing subtransmission lines resulting in no new aesthetic or visual impacts.

Stringing the telecommunications lines along existing subtransmission lines would require securing cable to existing cross arms using a truck with a pulling reel and a truck with a winch. For the portions of the telecommunications lines that would be installed underground in new conduits from the Triton Substation

to the existing Valley-Auld-Pauba subtransmission line, visual resources would be temporarily impacted due to construction activities including but not limited to trenching, windrowing of soil and debris, soil exposure, storage of construction vehicles, and signage.

Installation of the telecommunications lines would take place over a period of 3 months and would not be within a viewshed of a state scenic highway. While installation of the telecommunications line near the Moraga Substation would be approximately 0.65 miles from I-15, an eligible scenic highway, rolling hills and suburban development would obscure views of construction activity from it. Therefore, installation of the telecommunications lines, both underbuilt on new and existing subtransmission lines and within new and existing conduits, would not result in an impact on scenic resources within a state scenic highway.

Once installed, the telecommunications lines would not be visible except from very close distances. The cable used for the telecommunications lines would be less prominent than the conductor on the existing 115 kV subtransmission lines. The telecommunication lines would not be visible to motorists along I-15 and therefore, would have no impact on scenic resources within a state scenic highway once installed.

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

LESS THAN SIGNIFICANT IMPACT. Initial build-out of the project as a 56 MVA substation, including construction of the subtransmission line loop-in and telecommunications lines and decommissioning of the Canine Substation, would result in a less than significant impact on the existing visual character and quality of the site. Future expansion to a 112 MVA substation would have no additional impact on the existing visual character and quality of the site. Construction for the initial build-out of the project would last approximately 8 months.

Visual effects from construction would include laydown areas at the substation site; trucks, cranes, and other construction equipment at the substation site and along the subtransmission and telecommunications line sites; and parked vehicles of construction workers. These activities would degrade the existing visual character and quality of the site and its surroundings by introducing visual clutter, including but not limited to equipment storage, exposed soils, and signage.

Potential visual impacts from construction would be greatest at the substation site, along Nicolas Road where poles would be removed and installed, and in areas where the telecommunications lines would be installed in new underground conduit because the duration of these construction activities and the amount of equipment and disturbance required would be greatest. Due to the relatively short duration of disturbance from these activities, however, the project would not substantially degrade the existing visual character or quality of the site and its surroundings. There would be no permanent impacts on the existing visual setting as a result of construction activities; therefore, under this criterion construction of the project would result in a less than significant impact.

Operation of the project would not substantially degrade the existing character or quality of the site and its surroundings. The City of Temecula submitted comment letters and a letter of concern in response to the Proponent's Environmental Assessment for the Triton Substation. The letters, dated December 8, 2008, December 29, 2008, and January 20, 2009 (City of Temecula 2008a; 2008b; and 2009), express concern that the proposed substation site would be incompatible with the goals and policies of the City of Temecula General Plan. A petition was also filed, signed by 78 private citizens, expressing similar concerns about the site's visual compatibility with the surrounding area (McKernon 2008).

The substation, subtransmission line loop-in, and segments of the telecommunications lines would be sited within Nicolas Valley, designated a Rural Preservation Area in the City of Temecula's General Plan. The Land Use Element of the General Plan allows for utility infrastructure development that provides service to rural areas (City of Temecula 2005b). The Electrical Needs Area, or area to be served by the project, includes northwestern Temecula, southwestern Murrieta, and portions of unincorporated Riverside County. The Community Design Element of the General Plan outlines design standards for development within Rural Preservation Areas including "increased setbacks, landscape screening, and sensitive site planning."

The applicant would use a low-profile substation design sited on a 3-acre portion of the 10-acre site. The substation would have a setback of approximately 195 feet from the centerline of Nicolas Road and a setback of approximately 50 feet from the centerline of Calle Medusa. The siting of the substation would create distance between the typical viewer and the substation, and the low-profile design would limit the substation height. The substation would also be surrounded by an 8-foot high block wall and landscaping designed to screen views of the facility, the design of which would be reviewed and approved by the City of Temecula. The substation wall would mostly screen the mechanical components from view. Although most of the trees may require 10 to 15 years to fully mature, the vegetative screening would mimic the colors and textures of the surrounding environment. Therefore, the project would not conflict with the Rural Preservation Area designation.

Specific visual impacts on the existing character and quality of the landscape are described below as seen in the simulations prepared for the aesthetic resources analysis. Simulated views were prepared of the Triton Substation from Nicholas Road, the substation from Calle Medusa, and the 115 kV subtransmission line loop-in along Nicholas Road. The simulated views of the substation were prepared based on preliminary engineering. Since the preparation of the simulations, SCE has changed the substation design and reduced the setbacks from 270 feet from Nicolas Road to 195 feet from the centerline of Nicolas Road and from 60 feet from Calle Medusa to 50 feet from the centerline of Calle Medusa; therefore, the substation depicted in the simulations may appear further from both Nicolas Road and Calle Medusa than it would appear if constructed. Simulated views of the telecommunications lines were not prepared because they would not be visible except from very close distances. Additionally, the cable used for the telecommunications lines would be significantly less prominent than the conductor on the existing 115 kV subtransmission lines so that their addition is considered negligible.

KOP 1: Liefer Road (Figure 3.1-2)

KOP 1 shows the substation site from Liefer Road, immediately to the north of the intersection with Nicolas Road. The overall level of visual quality of the existing view is average, as determined based on evaluation using the FHWA rating system. Given the amount of manmade development in the viewshed, the vividness of the existing view is considered average to moderately low. Encroachments on the rural character of the site, including residences, manicured vegetation, sidewalks, roadways, and existing distribution lines, give the existing view average to moderately low levels of unity and intactness.

The simulation of KOP 1 shown is based on a preliminary project design with only two TSPs near the substation site instead of the three that are currently proposed. After the application was submitted and after this simulation was prepared, the applicant made revisions to the project to add a third TSP along Calle Medusa instead of the two that were originally proposed. The simulated view of KOP 1 also does not show landscaping that would be around the substation to screen views. While the simulated view shown is not entirely representative of what the substation would look like, the effect of an additional pole would be incremental and would not change this analysis. Additionally, this simulation was prepared assuming a setback of 270 feet from Nicolas Road and 60 feet from Calle Medusa. Final engineering has

reduced the setback to 195 feet from the centerline of Nicolas Road and 50 feet from the centerline of Calle Medusa. While the simulated view shown is not entirely representative of how the substation would appear from this vantage, the effect of the decreased setback would be incremental and would not change this analysis. Development of the project would alter the character of the view by adding infrastructure elements that contrast with the view's informal and quasi-rural character.

Development of the substation would entail grading approximately 5 acres of the site and the construction of the low-profile substation (PDF AES-2) on a 3-acre portion of the site. The substation would have a setback of approximately 195 feet from the centerline of Nicolas Road and a setback of approximately 50 feet from the centerline of Calle Medusa (PDF AES-1). The substation would be surrounded by an 8-foot high block wall (PDF AES-5). Landscaping that would be designed to screen views of the facility is not depicted in this simulation (PDF AES-6).

Other elements of the substation not depicted in the simulations include three strands of barbed wire that would be installed near the top of the block wall within the substation and a decorative access gate with minimum dimensions of 8 feet high and 24 feet long. Overall, the project would result in a noticeable visual contrast from this vantage. The vividness of the view, defined primarily by the bluff in the backdrop and the groves of large trees at the foot of the bluff, vegetation in middle and background views, and rural fences, would be unchanged. The intactness of the view would be altered by the presence of the substation equipment and three 85-foot high subtransmission poles. These manmade infrastructure features would introduce an element of contrast with the existing setting. The unity of the view would be similarly diminished due to the larger scale of the tubular steel poles that would replace the existing wooden poles and the increased numbers of overhead wires.

According to the FHWA metric, the existing view from this observation point is average. As seen in this simulation, the project would not diminish the vividness of the view, but would diminish the unity and intactness of the view to low. However, installation of the landscaping around the substation would screen the substation wall and much of the substation equipment from view, visually integrating the facility and the view. Most of the trees used as vegetative screening would take 10 to 15 years to fully mature. Landscaping would be consistent with other development in the project area, including the two church complexes across the street from the substation site. Landscaping consistent with the surrounding development would reduce the project's impact on the existing visual character.

Additionally, there is some visual clutter currently on the substation site in the form of various temporary structures and associated debris. However, the applicant plans to remove these structures and debris as part of their standard property maintenance and safety policies. With the substation landscaping and block wall in place, the project's effects on the visual character and quality would be less than significant from this vantage point.

KOP 2: Calle Medusa (Figure 3.1-3)

KOP 2 depicts the substation site and part of the subtransmission line loop-in from Calle Medusa, adjacent to the southwestern edge of the property. This view represents the viewshed from the approximately four residences above the substation. The overall level of visual quality of the existing view is average, as determined based on evaluation using the FHWA rating system. The vividness of the existing view is average with moderate amounts of development consistent with a rural setting. The intactness and unity of the existing view are also considered average due to the encroachment of infrastructure elements, the church development characterized by landscaping and sidewalks consistent with suburban appearances, and a small amount of residential and associated agricultural development on an otherwise natural viewshed.

Figure 3.1-3, Part A shows the substation site as it currently exists. Part B shows a simulated view of the completed substation without final landscaping. Part C shows the substation with vegetation beginning to mature around the substation block wall. Part D shows how the substation would be screened with mature vegetation. These simulations were prepared assuming a setback of 270 feet from Nicolas Road and 60 feet from Calle Medusa. Final engineering has reduced the setback to 195 feet from the centerline of Nicolas Road and 50 feet from the centerline of Calle Medusa. While the simulated views shown are not entirely representative of how the substation would appear from this vantage, the effect of the decreased setback would be incremental and would not change this analysis.

The development of the substation would alter the character of the view by adding substation equipment and 85-foot high subtransmission poles, and which would contrast with the view's open, rural residential character and reduce the visual quality of the view. Low-profile substation equipment would be used (PDF AES-2) and the substation facility would be surrounded with an 8-foot high block wall for screening (PDF AES-5). Low-profile design substations have shorter equipment and the overall area of the substation is reduced to approximately 81 percent of high-profile design stations. The scale of the proposed low-profile substation is comparable to the scale of nearby residential developments and the church complexes.

As depicted in Figure 3.1-3, Part B, before vegetative landscaping installed to screen the substation has fully matured, the vividness of the view, defined by the hills, vegetation, and rural fences seen in the backdrop, would be diminished. There would also be a reduction in the intactness and unity of the view; the manmade infrastructure features introduced by the substation and TSPs would be visually intrusive and inharmonious in this setting. According to the FHWA metric, the existing view from this observation point is average. As seen in this simulation, the substation and TSPs would diminish the vividness, unity, and intactness of the view to low.

However, as depicted in Figure 3.1-3, Part C and Part D, the perimeter of the substation would be landscaped with plantings designed to screen the substation and create a composition that relates to its surroundings (PDF AES-6). It would take approximately 10 to 15 years for the trees used for vegetative screening around the substation wall to fully mature, as depicted in Figure 3.1-3, Part C and in the foreground view of Part D. The landscaping would have the effect of visually integrating the facility into the landscape setting, reducing the level of contrast that would be introduced by the project by mimicking the surrounding colors and textures. The visual integration of the landscaping would be most effective when the trees used as vegetative screening are fully mature, but would still be effective in blending the appearance of the substation with the surrounding visual environment prior to their full maturity. The TSPs would remain highly visible even with mature landscaping in place.

Measures proposed by the applicant as part of the project to lessen impacts on visual resources, including landscaping, setbacks, the block wall, and the low-profile substation design, are designed to be consistent with existing development in the area, including the two church complexes directly across the street from the substation site. With these measures implemented, the change in the visual character of the view and the project's effects on the intactness and unity of the view would be substantially reduced.

Changes to the viewshed would primarily affect residents of the four homes above the substation site. Other viewers of the project include motorists and users of the two church complexes. Impacts on motorists and church users would be of short duration. While impacts on the residents would be for longer duration and from an elevated viewpoint, the number of residents is small. The project's effects on the visual character and quality of this view would be less than significant from this vantage point.

The existing character of the view from this vantage point would not be substantially degraded. Although the vividness, intactness, and unity of the view would be diminished, with the implementation of PDF AES-2, PDF AES-5, and PDF AES-6, the project would be consistent with development in the surrounding area. Additionally, the number of viewers that may be affected is relatively low, and for the majority of viewers effects would be of short duration.

KOP 3: Nicolas Road (Figure 3.1-4)

KOP 3 depicts a segment of Nicolas Road immediately west of the substation where TSPs for the subtransmission line would replace the wooden poles currently carrying distribution lines. Based on evaluation using the FHWA rating system, the overall level of visual quality of the existing view is low. The vividness of the existing view is low, with manmade development in the form of transportation and distribution infrastructure dominating the viewshed. The intactness and unity of the view are also low due to the considerable encroachments of manmade elements on the viewshed. The sensitivity of this view is moderate for motorists traveling on Nicolas Road and the users of the two church complexes that border Nicolas Road in this area; the sensitivity is high for the occupants of adjacent residences.

The simulation from KOP 3 depicts the proposed subtransmission line loop-in. Installation of subtransmission lines would require the installation of new TSPs. Eight 50- to 55-foot high wooden poles on the south side of Nicolas Road would be removed and replaced by seven to eight 85-foot high TSPs along Nicolas Road and Calle Medusa. The TSPs would carry the double-circuit subtransmission conductors needed to loop the substation into the existing Valley-Auld-Pauba 115 kV subtransmission line. The TSPs would also carry the existing distribution lines that are currently along Nicolas Road, and the wooden poles that currently carry those lines would be removed. The 12 kV duct banks that would connect the substation to the local distribution network would be underground and would not be visible.

The character of the view would be slightly altered because the electric infrastructure elements would be a more prominent part of the view. The scale and color of the TSPs would be less consistent with the quasi-rural character of the area than the existing wooden poles. The vividness and unity of the view remain the same, but there is a noticeable decrease in the level of intactness related to the larger scale of the TSPs in comparison to the existing wooden poles and the increased numbers of overhead conductors visible in the view.

According to the FHWA metrics, the existing quality of the view from KOP 3 is low. Infrastructure development, including the existing distribution line, the roadway, and a visible guardrail, has diminished the rural character of the view. Additionally, the landscaping and sidewalk surrounding the church complex's parking lot create a more suburban character. Though the subtransmission line loop-in would slightly decrease the intactness of the view, the TSPs would be generally consistent with existing development in the area. Additionally, by combining multiple lines on fewer poles, the project would create a more streamlined look and would prevent the proliferation of additional subtransmission lines in this viewshed. Therefore, the project would have a less than significant impact on the visual character and quality from this vantage.

Based on the analysis presented above from each of the KOPs, operation of the project would result in a less than significant impact under this criterion.

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. Construction of the project would not create new sources of substantial light or glare which would adversely affect day or nighttime views in the project area. Construction is scheduled during daylight hours and would not require daytime lighting. Night lighting would be temporary and of short duration during construction, if used. In these cases, the lighting would be directed downward and shielded to eliminate offsite spill (PDF AES-3). Because the lighting would be shielded and used on a temporary basis if at all, construction of the project would result in a less than significant impact on day and nighttime views due to the introduction of a new source of light or glare.

Operation of the project would not create a new source of substantial light that would adversely affect day or nighttime views. Under normal operating conditions, the substation, subtransmission line loop-in, and telecommunications lines would not require nighttime lighting. Lighting during operation would be used only on an as needed basis for emergency repairs. This lighting would consist of high-pressure sodium lights located in the switch racks, around the transformer banks, and in areas of the yard where emergency repairs may be required. These areas would be shielded from view from motorists, nearby residents, and church parishioners by an 8-foot high substation wall as well as landscaping (PDF AES-5 and PDF AES-6). Additionally, the lighting would be directed downward and shielded to eliminate offsite light spill (PDF AES-3).

Operation of the project would not create new sources of substantial glare that would adversely affect day or nighttime views. Glare can be caused when sunlight or artificial light reflect off large, highly reflective surfaces, which can interfere with vision. Project features with the potential to create glare include any equipment installed within the substation such as switch racks, buses and transformers; conductors on the subtransmission line loop-in; and poles used to carry the subtransmission line.

Equipment installed as part of the project would have a dull, gray non-reflective finish to minimize the risk of creating glare. Additionally, equipment within the substation would be shielded from view of motorists, nearby residents, and church parishioners by an 8-foot high substation wall as well as landscaping (PDF AES-5 and PDF AES-6). Non-specular subtransmission cable would be installed for the subtransmission line loop-in to minimize conductor reflectivity (PDF AES-4). In addition, TSPs that would be installed for the subtransmission line loop-in would have a dulled finish. Given the relatively small dimensions of the elements of the project with the potential to create glare and the project design features implemented to reduce the risk of creating glare, the project would have a less than significant impact on adversely affecting views by introducing a new source of glare.

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3.2 Agriculture and Forest Resources

Table 3.2-1 Agriculture and Forest Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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)) or timberland (as defined in Public Resources Code section 4526)?	☐	☐	☐	☒
d. Result in the loss of forest land 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?	☐	☐	☐	☒

3.2.1 Setting

The proposed Triton Substation and subtransmission line loop-in and the existing Canine Substation are located in the City of Temecula. The telecommunications lines would extend from the Triton Substation site in both northerly and southerly directions through more developed portions of the City of Temecula, a small portion of the City of Murrieta, and unincorporated portions of Riverside County to the existing Auld and Moraga Substations.

The City of Temecula is located in southwestern Riverside County. Riverside County is ranked 12th in the State of California for agricultural production (California Department of Food and Agriculture 2009). The City of Temecula recognizes agricultural uses as not only an important part of Riverside County's economy, but also as a desirable lifestyle for its residents. Table 3.2-2 lists the total acreage of farmland in terms of California's Farmland Mapping and Monitoring Program (FMMP) categories as well as their relative percentages of total farmland acreage in the Temecula Planning area.

The agricultural industry is an important component of both the county-wide and local economies, and the preservation of agricultural lands is regarded as a high priority for local land use planning agencies in the region, especially in light of encroaching urban development. The California Department of Conservation (CDOC) lists Riverside as the county with the highest losses of agricultural lands. Riverside County has lost 23,268 acres to urbanization, more than double that of any other county (Table 3.2-3). Of the total farmland converted in California, for the most recent period in which statistics are available, Riverside County accounted for 23% of newly developed land (CDOC 2006a).

Table 3.2-2 Significant Farmland within the Temecula Planning Area

Farmland Category	Acreage	Percent of Total
Prime Farmland	1,076 acres	8%
Farmland of Statewide Importance	203 acres	2%
Unique Farmland	1,724 acres	14%
Farmland of Local Importance	8,716 acres	69%
Grazing Land	974 acres	7%
Total	**12,693 acres**	**100%**

Source: City of Temecula 2005a

Table 3.2-3 Top Five Counties in Terms of Loss of Farmland 2004–2006

County	Acreage
Riverside	23,268 acres
Sacramento	9,893 acres
San Bernardino	9,414 acres
Kern	7,512 acres
San Diego	6,417 acres

Source: CDOC 2006a

The CDOC's Riverside County Important Farmland Data designates the Triton Substation site, subtransmission line loop-in route, and Canine Substation location as Other Land. Land traversed by the telecommunications routes primarily includes Other and Developed Land. The telecommunications route that extends north to the existing Auld Substation would cross a small area of designated Grazing Land that is located west of the French Valley Airport. There is a small plot of Unique Farmland north of the West Valley Airport, less than a quarter mile south of the telecommunications route near where it would connect with the Auld Substation (CDOC 2006b).

Regulatory Setting

The conservation of agricultural land in California is supported through the State's Division of Land Resource Protection and, specifically, through the FMMP and the California Land Conservation Act of 1965 (commonly referred to as the Williamson Act). For the FMMP, U.S. Department of Agriculture soils surveys and existing land use observations recorded during even-numbered years are used to determine the nature and quality of farmland in 10-acre minimum units across the state. FMMP mapping categories for the most important statewide farmland include Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. Other classifications include Farmland of Local Importance and Grazing Land. FMMP data are used in elements of some county and city general plans and associated environmental documents as a way of assessing the impacts of development on farmland, and in regional studies for assessing impacts due to agricultural land conversion.

Williamson Act Land

The Williamson Act enables local governments to enter into rolling, 10-year contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual farming and open space uses, as opposed to potential market value.

The CDOC Division of Land Resources Protection tracks and maps lands under Williamson Act contracts. The Triton Substation site, subtransmission line loop-in route, and Canine Substation are not located on or within the vicinity of land under Williamson Act contract. The land that would be crossed

by or within proximity to the telecommunications lines is not under Williamson Act contract (CDOC 2007).

Forest and Timberland

Population growth and urbanization in California have placed an increased demand on natural resources, including forested lands. At the same time, public opinion has placed an increased value on preservation and conservation practices. In response to these factors and the United States' pledge, following the 1992 Rio Earth Summit, to manage its forest lands in a sustainable manner by the year 2000, the California Department of Fire and Forestry published the Fire and Resource Assessment Program (FRAP) report. The report assesses the amount and extent of California's forests and rangelands, analyzes their conditions and identifies alternative management and policy guidelines with an eye toward sustainable forest management practices (California Department of Fire and Forestry 2003a).

As part of FRAP, the California Department of Fire and Forestry produced maps showing both the land cover and landscape management areas for the State of California. Land cover in and around the City of Temecula, including the portions of Murrieta and unincorporated Riverside County crossed by the telecommunications lines, constitutes agricultural land, shrub cover, and urban land (California Department of Fire and Forestry 2003b). The management landscape in and around the City of Temecula, including the portions of Murrieta and unincorporated Riverside County crossed by the telecommunications route, comprises urban land, agricultural land, and working land. Working land is defined as any land managed for commodity producing, which may include forest or timber land (California Department of Fire and Forestry 2003c). However, as shown in the FRAP Land Cover map, no woodlands or forests are present in the project area.

Timberland Productivity Zones

The Timberland Productivity Act of 1982 requires counties and cities in California with productive timberland to establish timberland productivity zones (TPZ) to prevent the conversion of these lands to other land uses. The land use element of the general plan must include a land use category that allows for timber production, and the conservation element may use TPZs to protect timber resources (Office of Planning and Research 2003).

There are no TPZs in the project area, including the location of the Triton Substation site, subtransmission line loop-in route, Canine Substation, and telecommunications line routes. The City of Temecula Land Use Element and Open/Space Conservation Element do not establish TPZs (City of Temecula 2005a and 2005b). The City of Murrieta Land Use Element does not contain land uses classes designated for timber production, and the City of Murrieta Conservation and Open Space Element does not establish provisions for protecting timber resources (City of Murrieta 1994a and 1994b). Riverside County does not designate TPZs within their Land Use or Multipurpose Open Space Elements (Riverside County 2003a and 2003b).

Land Use and Zoning

Growth pressures, particularly in urbanizing areas, can cause deforestation and threaten agricultural land. Local and regional governments may establish designated land uses or pass zoning ordinances that restrict approved land uses, limit development, and preserve agricultural lands or other natural resources, including forested lands.

The City of Temecula designates the Triton Substation site, subtransmission line loop-in route, and Canine Substation site land use as Very Low Residential and Low Medium Residential (City of

Temecula 2005c). Zoning for the main project area is Very Low Density Residential (City of Temecula 2009).

Within Temecula, the telecommunications lines would cross Very Low Residential, Low Medium Residential, Industrial Park, and Open Space land uses and would run adjacent or in close proximity to Medium Residential, High Residential, Community Commercial, and Public Institutional Facilities (City of Temecula 2005). The zoning designations crossed by or within close proximity to the telecommunications lines include Very Low Density Residential, Low Medium Density Residential, Medium Density Residential, High Density Residential, and Open Space (City of Temecula 2009).

Portions of the telecommunications lines would also pass through unincorporated Riverside County and the City of Murrieta. Land use designations for the telecommunications lines segments that would pass through unincorporated Riverside County include Conservation, Business Park, Light Industrial, Public Facility, and Commercial Retail. Land use designations for the segments of the telecommunications lines that would pass through the City of Murrieta include Business Park and Rural Residential (City of Murrieta 1994a).

Zoning designations for the portion of the telecommunications line that would pass through unincorporated Riverside County include Winchester Properties (Silver Hawk) specific plan, residential agricultural, light agricultural, industrial park, and scenic highway commercial. Zoning designations for the portion of the telecommunications line that would pass through the City of Murrieta include Business Park.

3.2.2 Environmental Impacts and Mitigation Measures

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

NO IMPACT. The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. FMMP maps prepared by the CDOC show that the Triton Substation and subtransmission line loop-in would be located on land classified as Other Land. The Canine Substation is also located on Other Land, and the telecommunications lines would cross Other, Developed, and Grazing Land.

A segment of the northern telecommunications line route (to the Auld Substation) crosses within less than a quarter mile of Unique Farmland. In this location, the telecommunications line would be underbuilt on existing structures and would not result in a change to existing land uses. Therefore, the telecommunications lines would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and construction and operation of the project would result in no impact under this criterion.

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

NO IMPACT. The project would not conflict with existing zoning for agricultural use. Within the City of Temecula, the Triton Substation site, subtransmission line loop-in route, and Canine Substation are located on land zoned Very Low Density Residential, Low Medium Density Residential, Medium Density Residential, High Density Residential, and Open Space (City of Temecula 2009). While these zoning designations may allow for agricultural uses, none of the zoning designations for land crossed by

or within the vicinity of project facilities are intended to prevent non-agricultural development; therefore, the project would not conflict with existing zoning for agricultural use.

The telecommunications line routes would not conflict with existing zoning regulations. The telecommunications lines would not cross any land zoned exclusively for agricultural use within the Cities of Temecula and Murrieta. The telecommunications line routes would cross a small portion of land zoned Residential Agricultural and Light Agricultural in unincorporated Riverside County. However, the telecommunications lines would be underbuilt on existing subtransmission lines or pass through existing underground conduit in these areas and, therefore, would not conflict with existing zoning regulations for agricultural uses.

The project would not conflict with any land use restrictions established by a Williamson Act contract. The Triton Substation site, subtransmission line loop-in route, and telecommunications lines routes would not be located on or within the vicinity of land under Williamson Act contract (CDOC 2007). The Canine Substation is located within an existing development, which is not under Williamson Act contract. Therefore, construction and operation of the project would result in no impact under this criterion.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?

NO IMPACT. The project would not conflict with existing zoning for, or cause rezoning of, forest land. Public Resources Code 12220(g) defines forest land as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for the management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." According to the Department of Fire and Forestry's FRAP classifications, there is no woodland or forest land cover, including both conifer and hardwood, in the project area.

The project would not conflict with existing zoning for, or cause rezoning of, timberland. Public Resources Code 4526 defines timberland as "land, other than land owned by the federal government and land designated by the board 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, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others." The Triton Substation site, subtransmission line loop-in route, Canine Substation, and telecommunications line routes are not located on land zoned Timberland by the City of Temecula, the City of Murrieta, or Riverside County. Therefore, construction and operation of the project would result in no impact under this criterion.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. The project would not result in the loss of forest land or conversion of forest land to non-forest use. According to the Department of Fire and Forestry's FRAP classifications, there is no woodland or forest land cover, including both conifer and hardwood, in the project area; therefore, the project would result in no impact under this criterion.

e. Would the project 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?

NO IMPACT. The project would not involve other changes in the existing environment which, due to location or nature, could result in the conversion of farmland to non-agricultural use. The Triton Substation site, subtransmission line loop-in route, Canine Substation, and telecommunications line routes are not located on land currently used for agricultural purposes. The Triton Substation site is currently zoned Open Space. The subtransmission line loop-in would be installed along the shoulder of an existing roadway. The Canine Substation is located within an existing, developed complex, and the telecommunications lines would be underbuilt on existing subtransmission lines or pass through existing underground conduit in these areas. The land within the project area is not currently used for agricultural purposes; therefore, the project would not involve changes to the existing environment that could result in conversion of farmland and would result in no impact under this criterion.

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3.3 Air Quality and Greenhouse Gases

Table 3.3-1 Air Quality and Greenhouse Gases Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
f.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (based on any applicable threshold of significance)?	☐	☐	☒	☐
g.	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Note: The checklist questions related to greenhouse gas emissions are based on proposed amendments to the state CEQA Guidelines, proposed by the California Governor's Office of Planning and Research April 13, 2009 (OPR 2009).

3.3.1 Setting

3.3.1.1 Air Quality

The project is located within the eastern portion of the South Coast Air Basin (SCAB) in western Riverside County. The SCAB is a federal Air Quality Control Region (AQCR) established by the United States Clean Air Act (CAA) and a state regional air basin designated by the California Air Resources Board (CARB). CARB has legal responsibility for regulating mobile source emissions throughout California and has appointed the South Coast Air Quality Management District (SCAQMD) to monitor and regulate air pollutant emissions from stationary, area, and indirect sources throughout the SCAB. SCAQMD also prepares regional air quality plans under the federal CAA and California CAA.

The SCAB has an arid climate and receives abundant sunshine and little rainfall, with mean average temperatures ranging from 36 degrees Fahrenheit (°F) in the winter to 102.5°F during the summer in 2008. Average annual rainfall is about 0.8 inches. The basin experiences temperature inversion—increasing temperature with increasing altitude—and light winds, which, together, limit the vertical dispersion of air contaminants. The SCAB's location near the Los Angeles Metropolitan Area (one of the largest urban areas in the U.S.) as well as light winds, climate, and natural barriers such as mountains with

up to 10,000 feet elevations to the north and east create conditions of poor air quality in the basin (SCAQMD 2007).

Criteria Pollutants

Air quality is assessed by measuring ambient concentrations of criteria pollutants. Pursuant to the federal CAA, the U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for seven criteria air pollutants. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The seven criteria air pollutants for which NAAQS have been promulgated are:

- Sulfur dioxide (SO_2)
- Nitrogen dioxide (NO_2)
- Particulate matter with diameters less than or equal to 10 microns (PM_{10})
- Particulate matter with diameters less than or equal to 2.5 microns ($PM_{2.5}$)
- Carbon monoxide (CO)
- Ozone (O_3)
- Lead (Pb)

Ozone is not emitted directly from emission sources but is created at near-ground level by a chemical reaction between oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight. As a result, NO_x and VOCs are often referred to as ozone precursors and are regulated as a means to prevent ground-level ozone formation.

Under the California CAA, the State of California has established additional and more stringent ambient air quality standards for some of these criteria pollutants, as well as ambient air quality standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. NAAQS and California Ambient Air Quality Standards (CAAQS) are summarized in Table 3.3-2.

Table 3.3-2 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [a]	National Standards [b]	
			Primary [c]	Secondary [d]
Ozone (O_3)	8 Hours	0.07 ppm [e]	0.075 ppm	0.075 ppm
	1 Hour	0.09 ppm	— [e]	— [e]
Carbon Monoxide (CO)	8 Hours	9.0 ppm	9 ppm	—
	1 Hour	20 ppm	35 ppm	—
Nitrogen Oxide (NO_2)	Annual Average	0.03 ppm	0.053 ppm	0.053 ppm
	1 Hour	0.18 ppm	—	—
Sulfur Dioxide ($S0_2$)	Annual Average	—	0.030 ppm	—
	24 Hours	0.04 ppm	0.14 ppm	—
	3 Hours	—	—	0.5 ppm
	1 Hour	0.25 ppm	—	—
Particulate Matter with diameters less than or equal to 2.5 microns ($PM_{2.5}$)	Annual Geometric Mean	12 µg/m^3	15 µg/m^3	15 µg/m^3
	24 Hours	—	35 µg/m^3	35 µg/m^3
Particulate Matter with diameters less than or equal to	Annual Arithmetic Mean	20 µg/m^3	—	—
	24 Hours	50 µg/m^3	150 µg/m^3	150 µg/m^3

Table 3.3-2 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [a]	National Standards [b]	
			Primary [c]	Secondary [d]
2.5 microns (PM_{10})				
Lead (Pb)	30-Day Average	1.5 µg/m^3	—	—
	Rolling 3-Month Average [f]	—	0.15 µg/m^3 [f]	0.15 µg/m^3 [f]
Sulfates	24 Hours	25 µg/m^3	—	—
Hydrogen Sulfide	1 Hour	0.03 ppm	—	—
Vinyl Chloride	24 Hours	0.010 ppm	—	—

Source: CARB 2008; EPA 2009a

Notes:

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded.

[b] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

[c] National Primary Standards represent the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[d] National Secondary Standards represent the levels of air quality necessary to protect the environment, including public welfare, from any known or anticipated adverse effects of a pollutant.

[e] On June 15, 2005, the 1-hour ozone standard of 0.12 parts per million (ppm) was revoked for all areas except the 8-hour ozone nonattainment Early Action Compact (EAC) areas. (Those areas do not yet have an effective date for their 8-hour designations.)

[f] Final rule signed on October 15, 2008.

ppm = parts per million by volume
µg/m^3 = micrograms per cubic meter

Attainment Status for Riverside County

The EPA and CARB classify an area as attainment, unclassified, or non-attainment, depending on whether the monitored ambient air quality data show compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively (EPA 2009b, CARB 2009). Table 3.3-3 presents the current state and federal air quality attainment status designations for Riverside County. The SCAQMD is responsible for leading the regional effort in the SCAB to attain federal and state standards and has developed and implemented the South Coast Air Quality Management Plan (AQMP) to reduce emissions, including emissions from industries and some mobile sources and consumer products.

Table 3.3-3 Attainment Status for South Coast Air Quality Management District—Riverside County

Pollutant	State Designation	Federal Designation
Ozone (8-hour)	Non-attainment	Non-attainment
Ozone (1 hour)	Extreme Non-attainment	Revoked [70 FR 44470] [a]
PM_{10}	Non-attainment	Serious Non-attainment
$PM_{2.5}$	Non-attainment	Non-attainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Attainment
Sulfates	Attainment	n/a
Lead	Attainment	n/a

Table 3.3-3 Attainment Status for South Coast Air Quality Management District—Riverside County

Pollutant	State Designation	Federal Designation
Hydrogen Sulfide	Unclassified	n/a
Visibility Reducing Particles	Unclassified	n/a

Source: CARB 2007, CARB 2009

Notes:

n/a: not applicable

[a] On June 15, 2005, the 1-hour ozone standard of 0.12 ppm was revoked for all areas except the 8-hour ozone nonattainment Early Action Compact (EAC) areas. (Those areas do not yet have an effective date for their 8-hour designations.)

South Coast Air Quality Management District—New Source Review and Significance Thresholds

SCAQMD exercises permit authority through its rules and regulations by requiring that new stationary sources secure a permit to construct and a permit to operate through the New Source Review (NSR) program (Regulation XIII). In addition, mobile and portable sources and temporary activities that cause emissions air contaminants are managed by the following rules and would be applicable to project construction and operation:

- SCAQMD Rule 401 – Visible Emissions. Prohibits visible air emissions as dark or darker shade than 20% opacity (No. 1 on the Ringelmann chart) for more than three minutes in any 1-hour period.
- SCAQMD Rule 402 – Nuisance. Prohibits emissions that cause injury, nuisance, or annoyance, or that endanger the comfort, repose, health or safety of the public, or that cause injury or damage to business or property.
- SCAQMD Rule 403 – Fugitive dust. Limits the amount of particulate matter caused by man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.

Rule 403 applies to construction and operational activities, including but not limited to "grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking." Moreover, Rule 403 requires the obligatory use of applicable best available control measures (BACM) to minimize fugitive dust emissions from each fugitive dust source type within the active operation. Examples of BACM include application of water in sufficient quantity to prevent generation of dust plumes and limiting vehicle traffic and disturbances on soil. All projects within SCAQMD's jurisdiction must meet Rule 403 requirements, which are not considered mitigation. The requirements for larger operations (50 acres or more of land disturbance, or a daily earth-moving or throughput volume of 5,000 cubic yards) do not apply to the project (SCAQMD 2005a, SCAQMD 2005b).

In addition, the SCAQMD CEQA Air Quality Handbook establishes guidelines for CEQA analyses including recommendations for significance criteria and mitigation measures to assist compliance with regional air quality plans. The SCAQMD has established three sets of criteria for determining the significance of emissions associated with construction and operation of new projects, which are summarized in Table 3.3-4. The first set of criteria establishes daily limits for a project's construction emissions. The second set of criteria applied to emissions is based on the toxicity of pollutants. Emissions from mobile sources are regulated by the EPA (interstate) and CARB (intrastate). The third set of criteria establishes thresholds for ambient concentrations of federal- and state-regulated air pollutants.

Table 3.3-4 SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	Construction	Operation
NO_x	100 lb/day	55 lb/day
VOCs	75 lb/day	55 lb/day
PM_{10}	150 lb/day	150 lb/day
$PM_{2.5}$	55 lb/day	55 lb/day
SO_x	150 lb/day	150 lb/day
CO	550 lb/day	550 lb/day
Lead	3 lb/day	3 lb/day
Toxic Air Contaminants (TACs) and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants		
NO_2 1-hour average Annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state)	
PM_{10} 24-hour average Annual average	10.4 µg/m^3 (construction) and 2.5 µg/m^3 (operation) 1.0 µg/m^3	
$PM_{2.5}$ 24-hour average	10.4 µg/m^3 (construction) and 2.5 µg/m^3 (operation)	
Sulfate 24-hour average	1 µg/m^3	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (federal/state)	

Source: SCAQMD 2009

SCAQMD also specifies guidance for localized significance thresholds (LSTs) for construction and operations when a project disturbs less than 5 acres, in order to determine the significance of air quality impacts on local sensitive receptors. LSTs are applicable to NO_x, CO, PM_{10}, and $PM_{2.5}$ and represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. The most restrictive LSTs are for PM_{10} and $PM_{2.5}$ because SCAQMD is in non-attainment for both pollutants. SCAQMD developed LSTs based on the size or total area of the emissions source (project construction footprint), the ambient air concentration of each pollutant for a source receptor area (SRA), meteorological data, and distance to the nearest sensitive receptor (SCAQMD 2008). The project area is located within the Temecula Valley SRA (No. 26); LSTs for this area for a 5-acre source size are listed in Table 3.3-5 below.

Table 3.3-5 Localized Significance Thresholds for Temecula Valley—5-Acre Source Size

Evaluation criteria	CO (lb/day)	NO_x (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
SCAQMD LST Thresholds	1, 732	371	13	8

Source: SCAQMD 2008

Other Local Plans

In addition to the South Coast AQMP, which is the primary planning tool for achieving federal and state air quality standards in the region, other plans or programs with air quality elements in the vicinity of the project include the Western Riverside Sub-Regional Air Quality Implementation Program, the City of Temecula General Plan (1993), the City of Murrieta General Plan (1994), and the Air Quality Element of the Riverside County General Plan (2003). These plans contain policies and goals in compliance with SCAQMD rules as discussed above and set requirements for grading, erosion, and sediment control, including dust prevention and control procedures.

3.3.1.2 Greenhouse Gases

Climate change refers to any significant change in measures of climate (temperature, precipitation, or wind) that lasts for an extended period (e.g., decades or longer). Climate change may be affected by a number of factors including natural cycles (e.g., changes in the sun's intensity or Earth's orbit around the sun); natural processes within the climate system (e.g., changes in ocean circulation); and human activities that change the atmosphere's composition (e.g., burning fossil fuels) or land surface (e.g., deforestation, reforestation, urbanization, and desertification).

California is a substantial contributor to global greenhouse gas (GHG) emissions as it is the second largest contributor in the U.S. and the sixteenth largest in the world (CEC 2006). The main GHGs of concern include:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (NO_x)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

According to the Intergovernmental Panel on Climate Change (IPCC) Third Assessment Report, increased atmospheric levels of CO_2 are correlated with rising temperatures; concentrations of CO_2 have increased by 31% above pre-industrial levels since 1750 (Figure 3.3-1). Climate models show that temperatures will probably increase by 1.4°C - 5.8°C between 1990 and 2100. Much of the uncertainty in this increase results from not knowing future CO_2 emissions, but there is also some uncertainty about the accuracy of climate models. The IPCC concluded in a statement released February 2, 2007, that "the widespread warming of the atmosphere and ocean, together with ice-mass loss, support the conclusion that it is extremely unlikely that global climate change of the past 50 years can be explained without external forcing, and very likely that it is not due to known natural causes alone" (IPCC 2007).

Global warming potential (GWP) is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming and is devised to enable comparison of the warming effects of different gases. It is a relative scale which compares the gas in question to that of the same mass of carbon dioxide. Carbon dioxide equivalence (CO_2e) is a measure used to compare the emissions from various GHGs based on their GWP, when measured over a specified timescale (generally 100 years). CO_2e is commonly expressed as million metric tons (MMT) of carbon dioxide equivalents ($MMTCO_2e$). The CO_2e for a gas is obtained by multiplying the mass (in tons) and the GWP of the gas. For example, the GWP for methane over 100 years is 25. This means that the emission of 1 MMT of methane is equivalent to the emission of 25 MMT of CO_2.

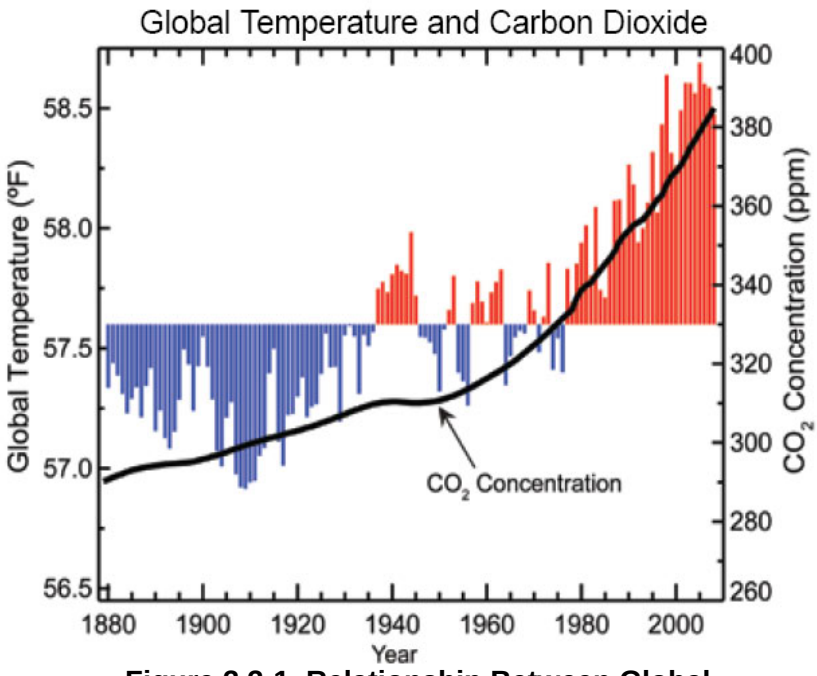


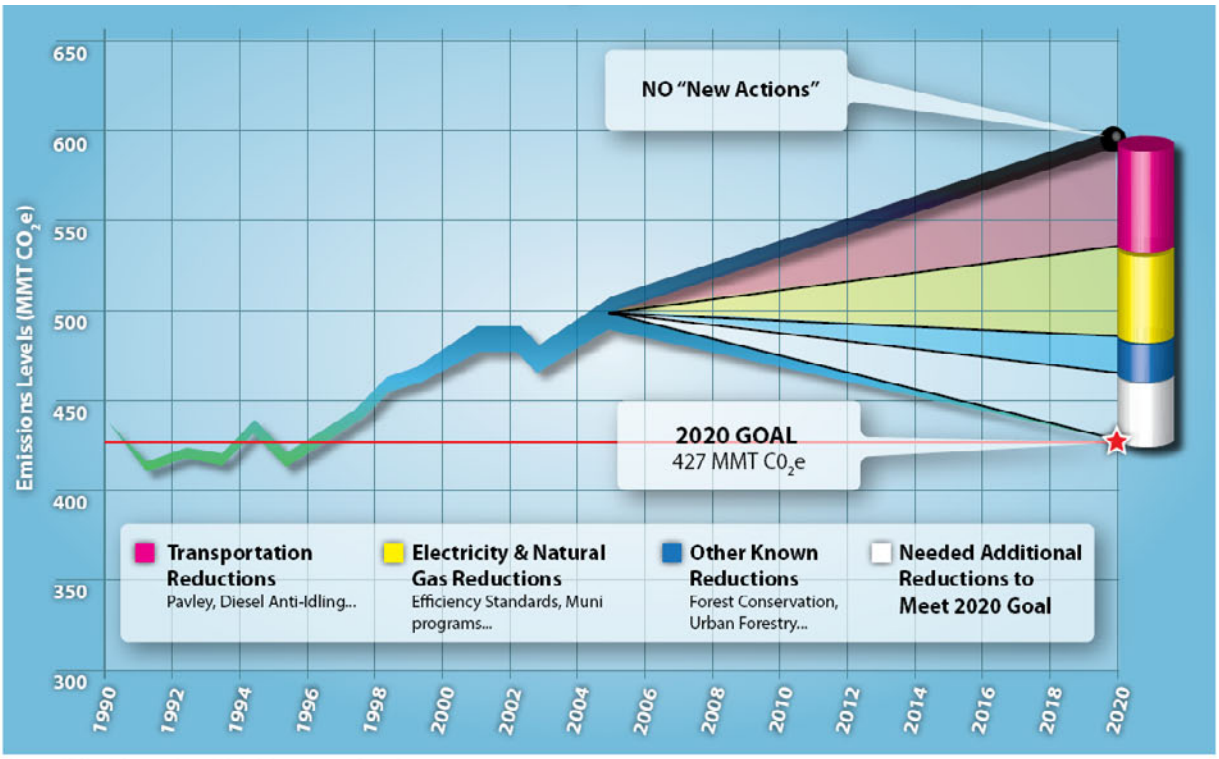
Figure 3.3-1 Relationship Between Global Temperature and Carbon Dioxide (IPCC 2007)

In November 2004, the California Climate Action Team (CAT) was formed, comprising 14 agencies, and 11 subgroups to assist CARB with the Climate Change Scoping Plan. According to the 2006 California CAT Report, the following climate change effects, based on the IPCC trends, can be expected in California over the course of the next century:

- A diminishing Sierra snowpack, declining by 70 to 90%, threatening the state's water supply;
- Increasing temperatures from 0.5° F to 5.8° F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas;
- Increased vulnerability of forests due to pest infestation and increased temperatures; and
- Increased electricity demand, particularly in the hot summer months.

Regulatory Setting

On June 1, 2005, California Governor Arnold Schwarzenegger issued Executive Order S-3-05, establishing statewide GHG emission reduction targets of 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. On Sept. 27, 2006, Governor Schwarzenegger signed the Global Warming Solutions Act, Assembly Bill 32, which capped the state's GHG emissions at 1990 levels by 2020. This is the first statewide program in the country to mandate an economy-wide emissions cap that includes enforceable penalties. Figure 3.3-2 shows a graphic representation of emissions reduction strategies to meet the goals of AB 32.



Source: California Energy Commission, Climate Action Team data.

Figure 3.3-2 California's CO_2 Emission Reduction Strategies (CEC 2007)

In 2007, the California Senate passed Senate Bill 97 (SB 97), requiring the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit guidelines for the feasible mitigation of GHG emissions or their effects, including, but not limited to, effects associated with transportation or energy consumption.

On April 13, 2009, OPR submitted to the Secretary for the California Natural Resources Agency its proposed amendments to the state CEQA Guidelines for GHG emissions, as required by SB 97. These proposed CEQA Guideline amendments would provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The Natural Resources Agency is conducting formal rulemaking in 2009, prior to certifying and adopting the amendments, as required by SB 97 (OPR 2009). The amendments propose a number of revisions related to GHG impacts, including changes to questions in the CEQA Guidelines Appendix G Checklist. Proposed changes and additions also address forest loss, energy conservation, and transportation effects. The amendments to the CEQA Guidelines must be certified and adopted by January 1, 2010.

Based on its 1990–2004 inventories of GHG emissions in California, CARB staff recommended and approved (December 6, 2007) an amount of 427 $MMTCO_2e$ as the total statewide GHG 1990 emissions level and 2020 emissions limit. This limit is an aggregated statewide limit, rather than sector- or facility-specific. CARB estimated current emissions levels as approximately 480 $MMTCO_2e$ in year 2007. The 2020 reduction target (or, the reduction of CO_2e required to meet the 2020 emissions limit) is currently estimated to be 174 $MMTCO_2e$. CARB has recommended 44 CARB early actions, which have the potential to reduce GHG emissions by approximately 42 $MMTCO_2e$ by 2020 (about 25% of the estimated reductions needed by 2020). Based on expected rates of growth in population and energy use, the

emissions reduction target is estimated to be approximately 30% below year 2020 business as usual emissions.

SCAQMD Interim GHG Significance Thresholds. In December 2008, SCAQMD adopted a proposal for interim CEQA GHG significance thresholds, which included a tiered approach for assessing the significance of GHG emissions from a project (SCAQMD 2003). For the purposes of determining whether or not GHG emissions from projects are significant, SCAQMD recommends calculation of project GHG emissions including direct, indirect, and to the extent information is available, life-cycle emissions during construction and operation. Because there are no applicable CEQA project exemptions (Tier 1) or approved regional plans that would affect the project (Tier 2), the project would be analyzed under Tier 3 of the SCAQMD guidelines, which state that construction emissions would be amortized over the life of the project (defined as 30 years) added to the yearly operational emissions, and then compared to the interim GHG significance "screening level" (i.e., threshold) of 10,000 metric tons of CO_2e ($MTCO_2e$) per year.

SF_6 Emission Reduction Partnership for Electric Power Systems. The EPA established the SF_6 Emission Reduction Partnership for Electric Power Systems (Partnership), a collaborative effort between EPA and the electric power industry to identify and implement cost-effective solutions to reduce SF_6 emissions. The Partnership obligates the 77 utilities that participate in this voluntary program to establish an SF_6 emissions reduction goal, among other actions (EPA 2007). The applicant has committed to sign the Partnership Memorandum of Understanding.

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize emissions of criteria air pollutants and greenhouse gases. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF LU-1: Public Notification and Complaint Procedures

PDF NOI-1: Construction Equipment Working Order

Additionally, the applicant would comply with the applicable SCAQMD regulations and required emission control measures and BACMs to reduce fugitive dust emissions during project construction.

3.3.2 Environmental Impacts and Mitigation Measures

Air Quality

Construction Air Emissions

Initial build-out of the Triton Substation to a 56 MVA substation is scheduled to take 8 months, including construction of the substation and subtransmission line loop-in, installation of the telecommunications lines, and the minor adjustments that would be made to existing substation facilities at six substations in Riverside County. Construction of these project components would take place concurrently. After the Triton Substation is constructed, the Canine Substation would be decommissioned. Future expansion to a 112 MVA substation has not been determined and would be dependent on need.

Engine exhaust from construction equipment and on-road vehicles used to transport employees and equipment would emit air pollutants. Additionally, clearing, earthmoving, grading, and paving activities as well as vehicle travel on local or access roads would generate fugitive dust.

The applicant estimated maximum daily air pollutant emissions for each construction phase using emission factors for off-road equipment as well as on-road vehicles and specific methodologies (e.g., for $PM_{2.5}$ emissions) developed by the SCAQMD and the EPA (e.g., fugitive dust), summarized in Table 3.3-6. Detailed calculations and assumptions are included in Appendix B. The estimated maximum daily emissions are intended to represent peak values based on the combination of overlapping construction activities that yield the highest emissions.

Table 3.3-6 Maximum Daily Construction Emissions

Evaluation Criteria	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)	SO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Maximum Construction Equipment and Vehicle Exhaust	47	82	10	0.1	3.7	3.4
Maximum Workers Commute	28	2.9	2.8	0.03	0.24	0.15
Maximum Fugitive Dust	NA	NA	NA	NA	40.2	6.9
Maximum Daily Emissions [a]	75	85	13	0.13	44	10
SCAQMD Regional Thresholds	550	100	75	150	150	55
Exceeds Regional Thresholds (Yes/No)	No	No	No	No	No	No

CO – carbon monoxide; NO_x – nitrous oxides; ROG – reactive organic gases; SO_x – sulfurous oxides; PM_{10} – particulate matter with diameters less than or equal to 10 microns; $PM_{2.5}$ – particulate matter with diameters less than or equal to 2.5 microns
Note:
[a] Maximum daily emissions from equipment exhaust, fugitive dust, and worker commuting would not always occur on the same day.

Some elements of the project were not considered during development of these estimates. For example, after the estimates were prepared the applicant modified the project to include installation of an additional tubular steel pole, and the estimates were prepared without consideration of the decommissioning of the Canine Substation or the potential future expansion of the substation. However, even with consideration of these other elements, the maximum estimated daily construction emissions would not be expected to exceed SCAQMD thresholds. These additional project elements would increase the total emissions estimates for the project, but they are not expected to increase the maximum daily estimated emissions. In addition, the applicant assumed an average 40 miles roundtrip for maximum worker commute. While this assumption may be underestimated, even considering a more conservative estimate of 80 miles roundtrip would not cause the maximum daily estimates to exceed SCAQMD thresholds.

Operation and Maintenance Air Emissions

Components of the project would require routine maintenance and emergency repair for service continuity. It is expected that routine maintenance personnel would generally visit the Triton Substation two times per month, which would not require additional personnel above normal staffing levels for the area. Air pollutant emissions from operation of the project were estimated based on the expected vehicle miles traveled by routine maintenance personnel using emission factors derived by SCAQMD. A summary of estimated maximum daily operations emissions is presented in Table 3.3-7. Detailed calculations and assumptions are presented in Appendix B.

Table 3.3-7 Maximum Daily Operations Emissions

Evaluation Criteria	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)	SO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Maximum Vehicle Exhaust	0.775	0.080	0.079	0.00085	0.0069	0.0043
Maximum Fugitive Dust	NA	NA	NA	NA	0.95	0.16
Maximum Daily Emissions	0.78	0.08	0.079	0.00085	0.96	0.17

Table 3.3-7 Maximum Daily Operations Emissions

Evaluation Criteria	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)	SO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
SCAQMD Regional Thresholds	550	55	55	150	150	55
Exceeds Regional Thresholds (Yes/No)	No	No	No	No	No	No

CO – carbon monoxide
NO_x – nitrous oxides
ROG – reactive organic gases
SO_x – sulfurous oxides
PM_{10} – particulate matter with diameters less than or equal to 10 microns
$PM_{2.5}$ – particulate matter with diameters less than or equal to 2.5 microns

Localized and Regional Air Emissions

Potential violations of air quality standards during project construction are analyzed under two categories: localized impacts and regional impacts. A localized impact analysis is included because the majority of impacts on air quality would result from emissions in the immediate area of the Triton Substation site. A regional impact analysis is included because the project site is located within a non-attainment area for ozone, PM_{10}, and $PM_{2.5}$.

To determine if project construction may result in a violation of an applicable air quality standard and generate significant adverse localized air impacts, SCAQMD has developed a methodology for calculating and analyzing LSTs. For projects that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, LSTs provide standards for localized emissions. They are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor (SCAQMD 2008).

The LST methodology developed by the SCAQMD uses mass rate look-up tables that are organized by Source Receptor Areas. The Triton Substation site would be located within the Temecula Valley Source Receptor Area in both rural and suburban areas.

Potential maximum localized impacts were estimated from construction activities that would be conducted at the Triton Substation site. An estimated 5 acres of land would be graded for the substation. Construction activities would occur over the entire 10-acre substation property, including for equipment staging and as a tension and pulling area. Table 3.3-8 summarizes daily maximum localized emissions estimates, which include both combustion-related emissions and fugitive dust emissions. The maximum combustion-related emission estimates are based on the equipment usage list, usage hours, and schedule (which includes the effort necessary for 5 acres of disturbance). The maximum fugitive dust emission estimates assume that the disturbed area on any one day is 0.5 acres.

Table 3.3-8 Localized Construction Emissions for Temecula Valley (5-Acre Source Size, Closest Receptor at 150 ft)

Evaluation criteria	CO (lb/day)	NO_x (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Maximum Construction Equipment Exhaust	36	67	3.2	2.9
Maximum Workers Commute	20	2	0.2	0.1
Maximum Fugitive Dust [3]	-	-	31	5.3
Maximum Combined Daily Emissions [1]	56	69	34	8

Table 3.3-8 Localized Construction Emissions for Temecula Valley (5-Acre Source Size, Closest Receptor at 150 ft)

Evaluation criteria	CO (lb/day)	NO_x (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
SCAQMD LST Thresholds [2]	2,393	416	40	10
Exceeds Thresholds (Yes/No)	No	No	No	No

Sources: SCE 2008; SCAQMD 2008b

Notes:

[1] Consistent with SCAQMD LST methodology, offsite delivery vehicle emissions were not included for these calculations.

[2] SCAQMD LSTs at 164 (50 m) feet are considered based on the estimated distance between the proposed substation location and the closest residential receptor.

[3] As required by SCAQMD Rule 403, emission rates estimations included applicable best available control measures to minimize fugitive dust emissions.

In practice, the land disturbed on any one day would be stabilized with water to minimize wind blown dust. Estimate assumptions also included construction emissions from overlapping construction activities that would occur within the vicinity of the Triton Substation site (as opposed to within the substation footprint), which would likely overestimate these contributions because some of these activities would occur at a distance from the substation site.

Greenhouse Gases

Construction GHG Emissions

Construction of the project would result in emissions of GHGs from onsite construction equipment as well as from off-site worker and delivery truck trips. The most common GHGs associated with fuel combustion include CO_2 and CH_4, which would be emitted from on-road vehicles and non-road equipment during project construction. Table 3.3-9 shows the applicant's estimated construction-related GHG emissions from CO_2 and CH_4 are 566 $MTCO_2e$, which would be 19 $MTCO_2e$ per year amortized over a 30-year period. Detailed calculations and assumptions are presented in Appendix B.

Table 3.3-9 Estimated CO2 and CH4 Emissions from Construction

	lb	GWP	CO_2e (lb)	$MTCO_2e$
CO_2	1,245,014	1	1,245,014	565
CH_4	109	21	2,289	1.04
		Total	1,247,303	
		Total Metric Tons		566
		Amortized (30-yr)		19 MT / year

Operation GHG Emissions from Vehicles

Operation and maintenance of the project would result in GHG emissions associated with periodic maintenance and inspection. GHG emission sources for maintenance and inspection of the project include employee vehicles and trucks, which would emit CO_2 and CH_4. Table 3.3-10 shows the applicant's estimated construction-related GHG emissions from CO_2 and CH_4 are 15 $MTCO_2e$.

Table 3.3-10 Estimated CO_2 and CH_4 Vehicle Emissions from Routine Inspections

	Vehicle Miles Traveled per year	Emissions Factor (lb/mile)	GHG emissions (lb/yr)	GWP	CO_2e (lb/yr)	$MTCO_2e$/yr
CO_2	29,200	1.1	32,049	1	32,049	15
CH_4	29,200	8.8E-05	2.56	21	54	0.02
				Total	32,103	
					Total Metric Tons / yr	15

There are some elements of the project that were not considered during development of the estimates for CO_2 and CH_4 emissions. For example, after the estimates were prepared the applicant modified the project to include installation of an additional tubular steel pole, and the estimates were prepared without consideration of the decommissioning of the Canine Substation or the potential future expansion of the substation. These additional project elements would result in slightly increased GHG emissions estimates for the project. Conversely, the applicant's projections may overestimate emissions from vehicles used for routine inspections because they assume trips for two vehicles daily, although only two visits per month are proposed for the project.

Operation GHG Emissions from Equipment Leaks

In addition to maintenance vehicle emissions, SF_6 would unintentionally leak from circuit breakers within the substation during project operations. SF_6 has a global warming potential (GWP) of 23,900, the highest of any greenhouse gas. New sources of SF_6 included as part of the project include five new circuit breakers, each of which would contain approximately 60 pounds of SF_6. Due to improvements in equipment design and field maintenance policies, it is estimated that fugitive emissions of SF_6 from the new circuit breakers would be less than one percent a year. An estimate for GHG emissions associated fugitive SF_6 leakage is presented in Table 3.3-11.

Table 3.3-11 Estimated Fugitive SF_6 Emissions

	Total capacity (lb)	Assumed leak rate per year	Fugitive SF_6 release (lb/yr)	GWP	CO_2e (lb/yr)	$MTCO_2e$/yr
SF_6	300	0.01	3	23,900	71,700	33

Operation GHG Emissions Summary

GHG emissions as a result of unforeseen emergency repairs are not included in these estimates and could feasibly lead to an increase in yearly emissions. Yearly GHG emissions associated with operation and maintenance from vehicle emissions and fugitive SF_6 is estimated to be 48 $MTCO_2e$ per year.

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

NO IMPACT. The project is required to be consistent with the South Coast AQMP (SCAQMD 2007). The plan outlines the SCAQMD long-term strategies designed to keep regional air quality in compliance with NAAQS and CAAQS. The emission inventory included as part of this plan includes fugitive dust and emissions from off-road and construction equipment.

The parameters of the AQMP are established according to forecasted air pollution emissions within the SCAB based on existing land uses and growth projections. A project would be inconsistent with the

AQMP if it results in emission levels that exceed the inventories or if it created or required population growth that exceeds the AQMP growth projections.

Emissions associated with project construction (Table 3.3-6) would be temporary and only represent a very small fraction of the regional emission inventory included in the AQMP. Project construction emissions are not expected to contribute a significant burden on the regional emission inventory. In addition, the project would not create permanent full-time or part-time employment positions during construction that would result in an increase in population or require new housing, either permanent or temporary, in the project area.

During operation of the project, two maintenance and inspection visits per month would be required. Air emissions from operations were calculated based on the use of two maintenance vehicle trips per month to the Triton Substation. Projected operational emissions (Table 3.3-7) would be a negligible fraction of the total emissions inventory included in the AQMP. Therefore, construction and operation of the project would not conflict with or obstruct implementation of the AQMP and would result in no impact under this criterion.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LESS THAN SIGNIFICANT IMPACT. During construction for initial build-out of the project and decommissioning of the Canine Substation, emissions would be generated at the Triton Substation site, the Canine Substation and six other existing substation facilities in Riverside County, the subtransmission line loop-in work areas, telecommunications lines work areas, and along roadways used to access these locations. During future expansion, emissions would be generated at the Triton Substation site and along roadways used to access it.

The primary source of emissions during construction would be exhaust from vehicles and equipment (e.g., NO_x, VOCs, CO, PM_{10}, and $PM_{2.5}$) and fugitive dust (PM_{10} and $PM_{2.5}$) from the movement of construction equipment and on-road vehicles as well as from grading activities. Heavy-duty diesel and gasoline-powered equipment and vehicles at the work sites would include loaders, graders, backhoes, cranes, and trucks. Worker vehicles used to commute to and from the project area and vehicles used for hauling equipment, materials, and supplies to the project area, including dump trucks for removing debris, would also contribute to total construction emissions.

As shown in Table 3.3-8, localized construction emissions of CO, NO_x, PM_{10}, and $PM_{2.5}$ would be below SCAQMD localized significance thresholds. From a localized perspective, project construction (assumed to be greatest at the substation site during initial build-out) would not violate air quality standards or substantially contribute to existing air quality standard violations. Therefore, project construction would result in a less than significant localized impact.

From a regional perspective, as shown in Table 3.3-6, maximum expected daily construction emissions (i.e., assuming peak equipment usage and overlapping construction phases) would also remain below SCAQMD thresholds. Emissions during routine project operation would include vehicle emissions from periodic inspection, maintenance, and repair of the Triton Substation and subtransmission lines. As shown in Table 3.3-7, criteria pollutant emissions from project operation would also be below SCAQMD significance thresholds. Therefore, construction and operation of the project would not violate air quality standards or contribute substantially to an existing or projected air quality violation and would result in a less than significant impact under this criterion.

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

LESS THAN SIGNIFICANT IMPACT. Under federal and state standards, the project is located in a non-attainment area for ozone (NO_x and VOCs), PM_{10}, and $PM_{2.5}$. As shown in Table 3.3-6, construction emissions of these criteria pollutants would not exceed emissions thresholds established by the SCAQMD. According to the SCAQMD white paper, *Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix D Cumulative Impact Analysis Requirements Pursuant to CEQA*, projects that do not exceed significance thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

Although the project would contribute to regional emissions of criteria pollutants, the contribution is estimated to be minor and temporary (i.e., primarily during the 8 months of construction for the initial build-out). Since project construction emissions would not exceed significance thresholds, and construction activities would be transient (i.e., there are no significant long-term emissions increases associated with the project), impacts on air quality are not expected to be cumulatively considerable due to construction of the project.

Additionally, emissions of non-attainment pollutants (PM_{10}, $PM_{2.5}$, NO_x, and VOCs) from operation of the project would be less than SCAQMD significance thresholds (Table 3.3-7). The contribution of routine maintenance trips would be minor compared to regional and local traffic emissions. Therefore, emissions from construction and operation of the project would result in a less than significant impact under this criterion.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS THAN SIGNIFICANT IMPACT. Sensitive receptors include schools, hospitals, and other sensitive uses. Land use conflicts can arise when sensitive receptors are located next to major sources of air pollutant emissions. It is estimated that approximately 60 residences and two churches are located within 1,000 feet of the Triton Substation, where the greatest localized emissions would be expected during construction. The nearest occupied residence is about 150 feet of the proposed substation location. Additional sensitive receptors (low residential and rural areas) are also located in close proximity to the telecommunications route.

Sensitive receptors would be exposed to criteria air pollutants and diesel particulate matter, a toxic air contaminant produced by diesel-fueled construction equipment. However, given that construction activities would be transient and specific to the times and locations where construction activities are taking place, the project would not result in long-term exposure of sensitive receptors to substantial concentrations of this pollutant.

As shown in Table 3.3-8, onsite construction emissions of CO, NO_x, PM_{10}, and $PM_{2.5}$ would be below the SCAQMD LSTs for receptors located 150 feet from the proposed substation site, assuming a scenario of construction work occurring at the same time for site grading, perimeter wall construction, civil and electrical construction, and MEER and transformers installation.

The applicant would be required to follow SCAQMD Rule 403, which includes measures to reduce effects from fugitive dust. In addition, the applicant would implement PDF NOI-1, which would limit the idling time of equipment and vehicles at the construction sites and also reduce associated combustion

emissions (CO, NOx, ROG, PM_{10}, and $PM_{2.5}$) from these sources. Therefore, project construction is expected to result in a less than significant impact under this criterion.

Emissions during routine project operation would include vehicle emissions from periodic inspection, maintenance, and repair of the Triton Substation and subtransmission lines. As shown in Table 3.3-7, maximum daily emissions from maintenance vehicles are below significance thresholds. In addition, under PDF LU-1, public notification and complaint procedures and a toll-free number would be established for addressing concerns regarding construction activities, including but not limited to dust and noise. Therefore, project operations would not expose sensitive receptors to substantial pollutant concentrations, resulting in a less than significant impact.

e. Would the project create objectionable odors affecting a substantial number of people?

LESS THAN SIGNIFICANT IMPACT. The applicant would use diesel-fueled construction equipment, which emits a distinctive odor that may be considered offensive to certain individuals. Odors generated by diesel exhaust would be reduced by the use of either low-sulfur to ultra-low-sulfur fuel. Paving activities would also generate odors from hot asphalt sources. However, the level of emissions would likely not cause a perceptible odor to a substantial number of people. Equipment at the Triton Substation would not create objectionable odors during operations. Potentially objectionable odors from vehicle emissions from routine maintenance would be minimal. No other substances used or activities involved with the project are expected to produce objectionable odors. In addition, under PDF LU-1, public notification and complaint procedures and a toll-free number would be established for addressing concerns regarding construction activities. Since the project is located in an area with low population density and the sources of potential odors would be temporary, construction and operation of the project would result in a less than significant impact under this criterion.

f. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

LESS THAN SIGNIFICANT IMPACT. At this time, there are no mandatory GHG regulations or finalized agency guidelines that would apply to this project. The SCAQMD has adopted a proposal for an interim CEQA GHG significance threshold of 10,000 $MTCO_2e$ per year for an industrial project. This threshold is designed to address emissions related to operations and maintenance, accidental leakage of SF_6, and construction emissions amortized over a 30-year period.

The applicant estimates that total yearly project GHG emissions would be 67 $MTCO_2e$ per year, with 19 $MTCO_2e$ per year from construction (amortized over 30 years), 15 $MTCO_2e$ per year from operations due to routine inspections, and 33 $MTCO_2e$ per year from operations due to fugitive SF_6 emissions. This estimate is well below the interim threshold of 10,000 $MTCO_2e$ per year.

The estimate did not take into consideration contributions from some project elements such as an additional TSP, decommissioning of the Canine Substation, and the potential future expansion to a 112 MVA substation. This estimate also does not account for any release of GHGs associated with unforeseen repairs due to emergency or other causes. However, even with consideration of the potential for additional GHG emissions associated with these sources, the levels are not expected to exceed the SCAQMD interim threshold of 10,000 $MTCO_2e$ per year. Therefore, the project would result in a less than significant impact under this criterion.

g. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

NO IMPACT. A scoping plan, approved by the CARB on December 12, 2008, provides the outline for actions to reduce California's GHG emissions. The scoping plan now requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. Project construction and operation would not conflict with any of the policies or GHG reduction measures outlined in the scoping plan. At this time, there are no mandatory GHG regulations or finalized agency guidelines that would apply to this project. Therefore, the project would result in no impact under this criterion.

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3.4 Biological Resources

Table 3.4-1 Biological Resources Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 US 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?	☐	☒	☐	☐

3.4.1 Setting

3.4.1.1 Project Areas

Triton Substation

The approximately 10-acre Triton Substation property contains primarily disturbed annual grassland with a mixture of invasive weeds. Two vacated mobile homes and a shed sit on the southern portion of the substation property, which is partially vegetated with mature ornamental trees that include hottentot fig (*Carpobrotus edulis*), gum (*Eucalyptus* sp.), prostrate acacia (*Acacia redolens*), and American sweetgum (*Liquidambar styraciflua*). A hillside on the far southern edge of the substation property contains coastal sage scrub vegetation. The northern edge of the substation property along Nicolas Road contains shrubs. The substation property also contains disturbed areas, including soil mounds, compacted soil access roads, a grain storage bin, a cinder block basin or foundation, and a former stock loading ramp. Materials staging for the project would occur at the substation property. The Triton Substation has been designed for the potential future expansion from the initial build-out of 56 MVA to 112 MVA, depending on need.

The nearest surface water body is Santa Gertrudis Creek, which parallels the north side of Nicolas Road. This intermittent creek is dry for at least a portion of the year in the vicinity of the substation property, although it supports some riparian vegetation. The substation property does not contain wetland features or vernal pools (BonTerra 2009a).

The substation property does not contain habitat for sensitive plant species, but does contain remnant patches of coastal sage scrub (BonTerra 2008). There is potential foraging habitat for three sensitive wildlife species: the loggerhead shrike (*Lanius ludovicianus*), spotted bat (*Euderma maculatum*), and western burrowing owl (*Athene cunicularia hypugaea*). While potential owl burrows were observed on the property during preliminary reconnaissance surveys, crepuscular surveys following the California Department of Fish and Game (CDFG) protocol (CDFG 1995) conducted in May 2009 did not locate burrowing owls or burrowing owl sign (BonTerra 2009b).

Trees, shrubs, and seasonally tall grass at the substation property and in the vicinity provide suitable habitat for raptors and other nesting birds that are protected under the Migratory Bird Treaty Act (MBTA). Survey crews located one common raven (*Corvus corax*) nest and two northern mockingbird (*Mimus polyglottus*) nests approximately 300 to 500 feet east of the proposed substation location (Page 2009a).

Canine Substation

The decommissioning of the existing Canine Substation would occur on a partially paved and otherwise disturbed area. Small ornamental trees adjacent to the Canine Substation site provide potentially suitable nesting habitat for birds that are protected under the MBTA and California Fish and Game code.

Subtransmission Line Loop-in

The installation of the subtransmission line loop-in from the proposed substation to the existing 115 kV subtransmission line would require excavation on the south side of Nicolas Road for placement of seven or eight tubular steel poles (TSPs). Excavated holes would be 7 to 9 feet in diameter and approximately 30 feet deep. Conductors for the two 115 kV subtransmission line segments would be installed between the existing Valley-Auld-Pauba 115 kV subtransmission line and Triton Substation. Two pull and tension sites would be located on the Triton Substation property, and one would be located near the existing Valley-Auld-Pauba 115 kV subtransmission line (Figure 1-3). Conductors are pulled using individual reels with ropes strung along the poles from each pull location using a conductor pulling machine.

Some ornamental trees located along the south side of Nicolas Road could provide nesting habitat to birds protected under the MBTA. There is also suitable habitat available for the burrowing owl and San Diego ambrosia (*Ambrosia pumila*) on the south side of Nicolas Road. No wetland features or vernal pools are considered to be present along the subtransmission line loop-in route on the south side of Nicolas Road, although there is one unnamed ditch that runs between Calle Golibri Road and Choras Ranch Road (BonTerra 2009a).

Telecommunications Lines

The project would require installation of two telecommunications lines—one from the Triton Substation to the Auld Substation in Murrieta and a second from the Triton Substation to the Moraga Substation in Temecula. From the Triton Substation to the Auld Substation, the telecommunications line initially follows the same route as the subtransmission line loop-in along Nicolas Road to the existing 115 kV subtransmission line. This segment would be installed on the new overhead structures for the subtransmission line loop-in on the south side of Nicolas Road. From there, the telecommunications line would be installed both overhead on existing structures and underground in existing conduit following the

existing Valley-Auld-Pauba 115 kV subtransmission line about 5 miles north and west to the existing Auld Substation (Figure 1-2).

The telecommunications line from Triton Substation to Moraga Substation also initially follows the same route as the subtransmission line loop-in along Nicolas Road. However, this segment would be placed in new underground conduit in Nicolas Road from the substation to the existing 115 kV subtransmission line (Figure 1-3). The telecommunications line would continue south for about 350 feet in the new underground conduit within the existing 115 kV subtransmission line right-of-way (ROW), where it would ascend a new riser on an existing structure. Excavation of trenches 18 inches wide by 36 inches deep would be required for the new conduit. From there the telecommunications line would be installed both overhead on existing structures and underground in existing conduit following the existing Auld-Moraga No. 2, 115 kV subtransmission line about 4 miles south and west to the existing Moraga Substation (Figure 1-2).

The existing 115 kV subtransmission line from the Auld Substation to the Moraga Substation is generally accessed through existing dirt maintenance roads and trails as well as some paved public roads. Several areas along the route contain potentially suitable habitat for Munz's onion (*Allium munzii*), San Diego ambrosia, Plummer's mariposa lily (*Calochortus plummerae*), intermediate mariposa lily (*Calochortus weedii var. intermedius)*, long-spined spineflower (*Chorizanthe parryi var. parryi)*, round-leaved filaree (*California macrophylla*), Quino checkerspot butterfly (*Euphydryas editha quino*), western burrowing owl, white-tailed kite (*Elanus leucurus*), coastal California gnatcatcher (*Polioptila californica californica*), orange-throated whiptail (*Aspidoscelis hyperythra*), and northern red-diamond rattlesnake (*Crotalus ruber ruber*) (BonTerra 2009c).

The telecommunications lines would pass close to a number of areas with trees, shrubs, coastal sage scrub, and annual grasses that could be used as nesting habitat by raptors, and other birds protected by the MBTA. The telecommunications lines would also be installed overhead on existing structures over several creeks and unnamed drainages, including Santa Gertrudis Creek, Empire Creek, and Tucalota Creek. Installation of the telecommunications lines normally requires the use of several vehicles, including a spool truck, a bucket truck, and a crew truck, and construction crews would use existing access routes and public roads. In areas where sensitive biological resources may be present, such as nesting areas, sensitive plant soils, or riparian area crossings, it is possible for the construction crew to complete the work on foot to avoid use of the vehicles there.

Emergency Transformer Bank at Auld Substation and Other Substation Upgrades

The applicant would decommission and leave in place an emergency 33/12 kV transformer bank located at the Auld Substation in Murrieta. Minor upgrades would also be made to equipment within existing substation facilities at six substations in Riverside County. These activities would occur on previously disturbed land within the substation walls.

3.4.1.2 Regulatory Setting

Federal and State Regulations, Plans, and Standards

The project was evaluated to determine consistency with the following federal and state regulations, plans, and standards related to the protection of biological resources:

- Federal Endangered Species Act of 1973 (ESA), which protects plants and animals that are listed by the federal government as "endangered" or "threatened"

- Section 404 of the Clean Water Act (CWA), which regulates the discharge of dredge-and-fill material into waters of the United States including wetlands
- Section 401 of the CWA, which requires a State Water Quality Certification (or waiver thereof) for activities requiring a U.S. Army Corps of Engineers (USACE) Section 404 permit, to ensure consistency with state water quality standards
- MBTA for protection of migratory birds, eggs, and nests
- Bald and Golden Eagle Protection Act for protection of the bald eagle and the golden eagle
- California Endangered Species Act (CESA) for protection of state-listed threatened, endangered, and rare species as well as species of special concern
- California Fish and Game Code, including Sections 1600 through 1616, 1802, 1900 et seq., 2050 et seq., 3503, 3503.5, 3511, 3513, 4700, 5050, and 5515, and Title 14, California Code of Regulations, Sections 670.2 and 670.5, for the conservation, protection, and management of the wildlife, native plants, and habitat necessary to maintain biologically sustainable populations
- California Porter-Cologne Water Quality Control Act, for the fill or alteration of the waters of the state

Local Regulations, Plans, and Standards

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The project is in the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is a comprehensive, multi-jurisdictional plan that focuses on conservation of species and their associated habitats in western Riverside County. It allows Riverside County and its cities to better control local land-use decisions while addressing the requirements of the state and federal Endangered Species Acts. The Plan Area encompasses 1.26 million acres in western Riverside County (Riverside County TLMA 2003).

This MSHCP has 146 “Covered Species” (including 14 narrow endemic plant species). Of the 146 “covered species,” 118 species are considered “adequately conserved” within the MSHCP. A covered species is considered adequately conserved when enough designated “Criteria Area” (i.e., geographic area, soils and/or habitat that supports, or has the potential to support, the Covered Species) has been acquired, or designated for acquisition, for that species in the MSHCP. For species not deemed adequately conserved, additional dedication and/or purchase of conservation land may be required, as determined on a case-by-case basis. A narrow endemic species has a limited geographic distribution (e.g., Santa Rosa Plateau or San Jacinto River Valley), an affinity for a particular soil-type (e.g., Domino, Travers, or Willow), and/or is restricted to a specific habitat (e.g., coastal sage scrub, vernal pools).

The MSHCP requires that project sites be evaluated for a number of factors to assess how they meet the criteria identified in the MSHCP. As part of this evaluation, a project should be assessed for riparian/riverine resources, vernal pools, areas under the jurisdiction of the USACE and/or CDFG, urban/wildlands interface issues, and the potential for special status species. If it is determined that there is potential for one of these resources and/or if the site is located within a Criteria Area that indicates potential for particular wildlife species or narrow endemic plant species, focused surveys may be required. Focused surveys must follow MSHCP protocol guidelines, which typically limit surveys to certain seasonal time periods and require a set number of surveys to be conducted.

The applicant has collected sensitive species information relevant to the MSHCP as well as developed project design features (PDFs) intended to protect sensitive species and habitat. The applicant has the

option to be a Participating Special Entity (PSE) under the MSHCP, and will seek authorization for take under the MSHCP should any construction activities have potential impacts on special status plants or wildlife.

County of Riverside Tree Ordinance

The County of Riverside Ordinance #559 regulates the removal of trees in unincorporated areas of the County above 5,000 feet in elevation. The project is below 5,000 feet and the ordinance is not applicable.

City of Temecula Heritage Tree Ordinance

The City of Temecula recently (July 2009) adopted and incorporated the Heritage Tree Ordinance into the City's municipal code to protect certain tree species. The ordinance does not apply to the project because construction or maintenance activities associated with a utility company under the jurisdiction of the California Public Utilities Commission are exempt.

City of Murrieta Tree Preservation Ordinance

The City of Murrieta's Tree Preservation Ordinance protects the following trees: any native oak with a diameter of 4 inches or greater, as measured 4.5 feet above the root crown; trees of historical or cultural significance as identified by council resolution; significant groves or stands of trees; mature trees (with a diameter of 9.5 inches or greater in total for all major stems, as measured 4.5 feet above the root crown) located on a parcel of 1 acre or more; or any tree required to be planted or preserved as environmental mitigation for a discretionary permit. According to this ordinance, no protected tree shall be removed, cut down, or otherwise destroyed, unless a tree removal permit has been obtained. Pruning or trimming that does not endanger the life of a protected tree is exempt from this ordinance.

3.4.1.3 Summary of Biological Surveys

Information on biological resources for the project was compiled through literature review of standard biological databases (e.g., California Natural Diversity Database [CNDDB]) and occurrence lists of special status plant and wildlife species from the CDFG and the Western Riverside County MSHCP, as well as from field surveys (BonTerra 2008, 2009 a-c). The applicant conducted reconnaissance field surveys in 2007 and 2008 to describe existing biological conditions, and to determine if suitable habitat was present for candidate, sensitive, or special status species. These surveys were conducted in all areas of the project (BonTerra 2008). The general reconnaissance surveys included vegetation mapping, active searches for reptiles and amphibians, surveys for mammals and/or their diagnostic sign, and visual and auditory bird searches. In addition to general reconnaissance surveys, the applicant performed protocol-level surveys for the burrowing owl in 2009 along the telecommunication line route and included a 100-foot buffer on either side of the line (hereafter referred to as the survey area) (BonTerra 2009b and c). Opportunistic observations of other wildlife species were noted during the burrowing owl surveys.

Vegetation communities within the project area include coastal sage scrub, annual grassland, ornamental trees and shrubs, ruderal areas that have been altered by past mechanical disturbance and soil compaction activities, and riparian vegetation. The coastal sage scrub is dominated by California buckwheat (Eriogonum fasciculatum), California sagebrush (Artemisia californica), deerweed (Lotus scoparius), prickly pear (Opuntia sp.), elderberry (Sambucus mexicana), and a high density of non-native weeds, including tocalote (Centaurea melitensis), and shortpod mustard (Hirschfeldia incana). The annual grassland contains the native species of telegraph weed (Heterotheca grandiflora), doveweed (Eremocarpus setigerus), and California buckwheat, as well as non-native species including foxtail chess (Bromus madritensis ssp. rubens), soft chess (Bromus hordeaceus), ripgut grass (Bromus diandrus), red-stemmed filaree (Erodium cicutarium), and shortpod mustard. Ornamental species in the area are non-

native varieties such as hottentot fig, gum, prostrate acacia, American sweetgum, and turf grass. Ruderal areas are dominated by non-native weeds including shortpod mustard, red-stemmed filaree, tocalote, Russian thistle (*Salsola tragus*) and foxtail chess. Scattered native species are also present in ruderal areas, including rancher's fiddleneck (*Amsinckia menziesii*), salt heliotrope (*Heliotropium curassavicum*), jimson weed (*Datura wrightii*), cocklebur (*Xanthium strumarium*), Pomona locoweed (*Astragalus pomonensis*), telegraph weed, and deerweed.

The route for the telecommunications lines crosses several creeks and unnamed drainage systems. One unnamed drainage is located on the south side of Nicolas Road along the route for the subtransmission line loop-in and the telecommunications lines. Santa Gertrudis Creek lies directly to the north across Nicolas Road in the vicinity of the Triton Substation site (Figure 3.8-2). These drainages are intermittent and ephemeral systems typical of Southern California landscapes that are dependent on seasonal precipitation for flow and contain water only a few months out of the year. Some drainages are manmade ditches that receive runoff from roads, neighborhoods, and other impervious surfaces. Riparian habitat is associated with some of the creeks, while other drainages lack this feature (Page 2009b). Riparian vegetation includes mulefat (*Baccharis salicifolia*), willows (*Salix spp*.), sedges (*Carex spp*.), rushes (*Juncus spp*.), cottonwood (*Populus freemontii*), and elderberry. No wetlands or vernal pool features were found within the project area (BonTerra 2009a).

All these vegetation types in the project area are relatively disturbed and may provide low-quality habitat for both common and special status wildlife species. Common wildlife species observed during the surveys included birds, reptiles, and mammals. Bird species present were mourning dove (*Zenaida macroura*), Say's phoebe (*Sayornis saya*), common raven, northern mockingbird, lark sparrow (*Chondestes grammacus*), western meadowlark (*Sturnella neglecta*), house finch (*Carpodacus mexicanus*), and lesser goldfinch (*Carduelis psaltria*). Reptile species, such as the western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*), and mammal species, such as the California ground squirrel (*Spermophilus beecheyi*), were also present.

Sensitive and Special Status Plant and Wildlife Species

Plants

Suitable soils and vegetation association types such as grasslands and sage scrub provide potential habitat for special status plants within the survey area along the routes for the telecommunications lines and the subtransmission line loop-in (BonTerra 2009c) See Appendix C, Biological Survey Maps. The applicant did not identify suitable habitat for special status plants within the substation property. The following species may occur within the project area:

- Munz’s onion (listed as federally endangered [FE] and California state threatened [ST])
- San Diego ambrosia (FE)
- Plummer’s mariposa lily (California sensitive species)
- Intermediate mariposa lily (California sensitive species)
- Long-spined spineflower (California sensitive species)
- Round-leaved filaree (California sensitive species)

Three of these species are considered Narrow Endemic Plant Species within the Western Riverside County MSHCP: Munz’s onion, San Diego ambrosia, and round-leaved filaree. Likelihood of occurrence for plant species was determined by regional botanists familiar with the habitat requirements for these species, utilizing desktop analysis, existing occurrence data, and past and present field surveys. In

general, the presence of required soils and habitat associations are indicators of suitable habitat as well as direct observations of blooming specimens. Altamont clay, Auld clay, Bosanko clay, clay pit, Domino, Porterville cobbly clay, Traver and Willow soils are all preferred soils.

Known populations of Munz's onion and San Diego ambrosia directly border the route for the telecommunications lines; the onion population is just north of Central Park Drive to the east of the survey area, while a large (500 to 600 plants) ambrosia population lies directly north of Santa Gertrudis Creek in and adjacent to the ROW for the existing 115 kV subtransmission line (Crain 2009). The ambrosia population is located along the shoulders and margins of the existing access road within the ROW, and this population has been proposed (August 27, 2009) for critical habitat designation (74 Federal Register 165). The mariposa lily requires rocky areas within coastal sage scrub habitat, and suitable habitat is located within the southern portion of the telecommunications route (Appendix C, Biological Survey Maps). The long-spined spine flower and round-leaved filaree have past occurrences noted within various portions of the ROW (CNDDB 2009).

Based on suitable habitat factors for each species and the presence of known reference populations, botanists identified additional potential suitable habitat within the telecommunications survey area for three of the species (Appendix C, Biological Survey Maps). Potential suitable habitat for the ambrosia was identified within the survey areas for the telecommunications lines and subtransmission line loop-in to the south of the creek, south of Nicolas Road. This habitat was determined to be marginal due to the high level of disturbance to the soils and the continuous presence of vehicles along the access road.

Birds

Suitable habitat for the coastal California gnatcatcher, which is a species listed as federally threatened (FT) and a California species of special concern (SSC), is located in several portions of the project area. The disturbed coastal sage scrub community that potentially provides suitable habitat for the species occurs in non-contiguous sections throughout the length of the telecommunications lines (Appendix C, Biological Survey Maps). There is also a small amount of coastal sage scrub vegetation on the far south edge of the Triton Substation property, although this patch is marginal in quality and size and unlikely to provide suitable habitat for the coastal California gnatcatcher (BonTerra 2008). The gnatcatcher was observed in proximity to the survey area during burrowing owl surveys along the telecommunications lines (BonTerra 2009c). See Appendix C, Biological Survey Maps.

Potential nesting and forage habitat provided by trees, shrubs, and annual grasslands for MBTA and special status birds exist in all project areas. The habitat is highly disturbed, both at the substation property and along the routes for the telecommunications lines and the subtransmission line loop-in, and provides marginal quality habitat for birds. Potential habitat is available for loggerhead shrike (SSC), white-tailed kite (California fully protected [FP]), and burrowing owl (SSC), and white-tailed kite and burrowing owl were observed during surveys (BonTerra 2009c). See Appendix C, Biological Survey Maps. Loggerhead shrike was not observed in the project area, and only potential foraging habitat was identified on the Triton Substation property as the ornamental trees located there do not provide suitable cover for nesting. Loggerhead shrikes select nest sites, usually trees or shrubs, which provide a high level of cover (Yosef 1996). No nesting or forage habitat was identified for shrike anywhere else in the project areas. Grasslands throughout the project area provide forage habitat for the white-tailed kite, and although no breeding habitat was identified, potential nest trees for this species are present within the survey area for the telecommunications and subtransmission line loop-in routes.

Potential burrows for burrowing owl were found on the Triton Substation property in 2008, but no burrowing owls or sign were found during subsequent surveys in 2009 conducted in accordance with CDFG survey protocols. Two pairs of burrowing owl were observed in proximity to the

telecommunications line in the vicinity of Auld Road during 2009 protocol-level surveys. Burrowing owl burrow clusters ranged from 148 to 444-feet from the centerline of the Auld-Moraga No. 2 115 kV alignment. Burrowing owls will use more than one burrow during a season. Five burrows were being used by the two families observed. Burrowing owl suitable habitat is found throughout the routes for the telecommunications lines and the subtransmission line loop-in.

Invertebrates

Plantain (*Plantago spp*.) and white snapdragon (*Anterrhinum coulterianum)* are the primary host plants for the Quino checkerspot butterfly (FE), and the species can be found in habitat types that support these plants such as annual grasslands, coastal sage scrub, chaparral, juniper woodland, and semi-desert scrub (Center for Biological Diversity 2009, 50 CFR Part 17 RIN 1018-AH03). Suitable habitat for the butterfly is located throughout the routes for the telecommunications lines and the subtransmission line loop-in (BonTerra 2009c). See Appendix C, Biological Survey Maps. Although none were observed during project surveys, the CNDDB (2009) shows occurrences of the butterfly from over the past 10 years throughout or in close proximity to all project areas.

Mammals

Suitable foraging habitat within the grasslands and along the Santa Gertrudis Creek is available for the spotted bat (SSC) within the Triton Substation property and along the routes for the telecommunications lines and subtransmission line loop-in. Spotted bats are closely associated with cliff-side crevices for roosting (Luce 1998). Research suggests that the distribution of the bat is dependent upon the availability of suitable roosting habitat (Bolster 1998). No breeding or roosting habitat is present in any area of the project. Surveys specifically targeting bats (e.g., night surveys) were not conducted for the project.

Reptiles

Orange-throated whiptail (SSC) and northern red-diamond rattlesnake (SSC) were both observed during surveys of the route for the telecommunications line and suitable habitat occurs throughout the project area (BonTerra 2009c) See Appendix C, Biological Survey Maps. Whiptail are found in areas with friable soils, loose rocks, and scrub habitat such as coastal chaparral, washes, and along drier streams (NatureServe 2009). The rattlesnake is also found in scrub and chaparral habitat, as well as in cultivated fields and roadsides. These habitat types occur throughout the project area.

Project Design Features

The applicant has incorporated the following PDFs into the project to minimize or avoid impacts on biological resources. While a brief summary of the features is given below, see Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF BIO-1: Pre-Construction Surveys

PDF BIO-2: Biological Resources Worker Environmental Awareness Program

PDF BIO-3: Biological Monitors

PDF BIO-4: Avian Protection

PDF BIO-5: Best Management Practices

PDF BIO-6: Nesting Birds

PDF BIO-7: Burrowing Owls

PDF BIO-8: Special Status Plants

PDF BIO-9: Lighting

PDF BIO-10: Noise

3.4.2 Environmental Impacts and Mitigation Measures

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Based on initial survey efforts as described above, the project area provides suitable habitat for sensitive and special status species, and several of these species were observed during surveys. Construction or decommissioning activities for portions of the project may impact these species and their habitats. Potential expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be conducted within the substation and would not affect biological resources.

Special Status Plants

The field survey of the Triton Substation did not identify habitat for sensitive plant species, although sensitive vegetation (i.e., coastal sage scrub) is present on the substation property. Habitat for Munz's onion, San Diego ambrosia, Plummer's mariposa lily, intermediate mariposa lily, long-spined spineflower, and round-leaved filaree was found within the survey area along the route for the telecommunications lines. Additionally, known populations of the onion and ambrosia are along the route for the telecommunications lines. The known ambrosia population along the route for the telecommunications line to the north of Santa Gertrudis Creek is a high quality, viable population.

Areas where ground disturbance would occur that might directly or indirectly impact special status plants include aboveground installation of telecommunications lines, 350 feet of trenching within the ROW of the existing 115 kV subtransmission line south of Nicolas Road required for new telecommunications line conduit, pull and tension sites south of Nicolas Road, and TSP excavations. Aboveground installation of the telecommunications lines would require driving vehicles (e.g., bucket, spool, and crew trucks) along the ROW on existing access roads, along the shoulder of the road, and potentially off-road in sections where access roads are not present. Driving vehicles off-road into areas that may provide habitat for special status plants would negatively impact those species through direct loss of plants, compaction of soils, and the potential introduction of invasive species. Excavation of soil for conduit trenching and TSPs could also impact plant species by removing resident plants and the seed bank that may be present, and permanently removing habitat. Additionally, the coastal sage scrub located on the substation property could be removed to accommodate the substation footprint or indirectly impacted by dust generated during construction. Significant dust generation can cover plants, thereby inhibiting photosynthetic capacity and contributing to the eventual mortality of the plant.

The applicant has developed PDFs to avoid and minimize impacts on special status plants and their habitat. Pre-construction botanical surveys (PDF BIO-1 and PDF BIO-8) would be conducted during the blooming season in all project areas where suitable habitat is present to determine presence/absence of special status plants. Clearance surveys may miss Munz's onion plants as these are bulb species that do not bloom annually, but can lay dormant in the soil without aboveground florescence. Therefore, evaluation of soils will be an important aspect of pre-construction surveys. Biological monitors will be present during construction in areas with suitable habitat for sensitive species (PDF BIO-3), and

construction crews will be trained on sensitive biological resources present within the project area (PDF BIO-2). Best management practices (BMPs) (PDF BIO-5) would be employed that may address preserving vegetation and managing stockpiles. If special status plant species are present in any project area, then the applicant would consult with resource agencies on best measures to avoid, reduce, or mitigate for impacts such as transplanting or seed collection (PDF BIO-8).

Impacts on special status plants would be potentially significant. PDFs as proposed will not fully protect sensitive plants and their seed banks. The removal of native vegetation such as coastal sage scrub could impact sensitive plants as these native communities could provide suitable habitat for sensitive plants. Sensitive plants and associated seed bank could be directly removed or crushed during overhead and below ground construction activities even after PDFs are implemented, particularly if: 1) construction activities occur outside the footprint of existing access roads, 2) plants and suitable soils are not accurately surveyed during pre-construction surveys, 3) spoils and other construction materials are placed in sensitive habitats, and 4) non-native species are introduced into sensitive habitat areas. Implementation of MM BIO-1, MM BIO-2, and MM BIO-3, below, would reduce potential impacts to less than significant by limiting the loss of native vegetation, incorporating additional BMPs, ensuring adequacy of pre-construction surveys , and prescribing additional measures should sensitive plants be found during surveys. Incorporation of these measures would reduce potential impacts to less than significant levels.

Special Status Wildlife

As described above, suitable habitat for sensitive and special status wildlife was located within and adjacent to the survey area along the route for the telecommunications lines. Several special status species were also observed within and adjacent to the route for the telecommunications lines. Impacts on these species may occur from construction activities associated with installation of the telecommunications lines, conduit for the lines, subtransmission line installment, and substation construction. Specific impacts are discussed below for each species.

Coastal California Gnatcatcher

Although a small patch of sage scrub is located on the Triton Substation property, it does not appear that this area would provide adequate nesting habitat for this species due to the small habitat size and lack of connectivity to other like habitat. The vegetation may provide marginal foraging habitat. Given the poor quality of this habitat, the gnatcatcher is unlikely to use the Triton Substation area. Therefore, construction activities on the Triton Substation are unlikely to result in a significant impact on the gnatcatcher.

Nesting and foraging habitat that does support and potentially could support the gnatcatcher occurs along the route for the telecommunications lines. An adult coastal California gnatcatcher was observed within 100 feet of the alignment in the July 2009 survey. Construction activities such as trenching and the presence of field crews and vehicles for installation of the telecommunications lines could cause impacts on the gnatcatcher and its habitat. Direct removal of suitable habitat or disturbance in proximity to this habitat could cause abandonment of suitable habitat including nesting habitat, could reduce available habitat overall within the project area, and could inadvertently kill gnatcatchers present within the habitat. No native vegetation would be removed for aboveground installation of the line, and actual work time for this activity is approximately 25 days. Trenching would involve approximately 6 days of work, including trenching along Nicolas Road and approximately 350 feet within the ROW for the existing 115 kV subtransmission line just south of Nicolas Road. Trenching may require removal of vegetation. The applicant has incorporated measures to avoid and reduce impacts on birds including pre-construction nesting bird clearance surveys (PDF BIO-1), biological training and monitors (PDF BIO-2 and 3), BMPs that may preserve existing vegetation (PDF BIO-5), vegetation clearing would occur outside the nesting season (PDF BIO-6), and noise setback buffers (PDF BIO-10).

Temporary impacts on individuals of the species from general human disturbance would be short-lived and therefore less than significant. Potential mortality from clearing and grading work would be avoided by the above PDFs. However, there would be potential significant temporary and permanent impacts on gnatcatcher habitat. Implementation of MM BIO-1 would reduce loss of potential suitable habitat by reducing the amount of coastal sage scrub to be removed during construction. Additionally, MM BIO-2 would further limit loss of or indirect disturbance to sage scrub through specific BMPs that confine construction activities to existing disturbance footprints. MM BIO-4 prescribes how pre-construction surveys could be conducted to avoid and minimize impacts, and the appropriate mitigation measures to enact should gnatcatchers be found during these surveys within suitable habitat.

Quino Checkerspot Butterfly

Habitat potentially suitable to support the federally endangered Quino checkerspot butterfly exists in several areas along the route for the telecommunications lines and primarily coincides with the coastal sage scrub vegetation. Host plants for the butterfly can be found in association with sage scrub and grassland communities. No observations of the butterfly were made within the survey area along the routes for the telecommunications lines or in other area of the project, although past occurrences of the butterfly have been documented within proximity of the survey area. Impacts on the habitat of the butterfly could result from overhead and underground installation of the telecommunications lines, excavations for the TSPs, and pull and tension site activity, due to removal of vegetation and generation of dust. Pre-construction clearance surveys for the butterfly (PDF BIO-1) and BMPs to preserve existing vegetation (PDF BIO-5) would be implemented. Temporary impacts on the species such as habitat avoidance due to general human disturbance would be short-lived and therefore less than significant. However, there would be potential significant temporary and permanent impacts on Quino checkerspot butterfly habitat after implementation of PDF measures. Host plants could be removed during construction, or damaged by dust generation, placement of spoils and other materials within suitable habitat, or compaction by vehicles and equipment. Implementation of MM BIO-1, MM BIO-2, and MM BIO-5 would reduce habitat impacts to less than significant.

Loggerhead Shrike

The Triton Substation property contains grasslands that are potential foraging habitat for the loggerhead shrike; however, the habitat quality is highly disturbed and too poor to provide suitable nesting or roosting habitat. Loggerhead shrikes were not observed during field surveys of the substation property or other project areas, and no suitable habitat was identified.

Given the overall poor habitat quality and the existing level of disturbance associated with the substation property, and the lack of habitat in other portions of the project, this species is unlikely to occupy the project area and therefore, impacts on this species due to construction and operation of the project would be less than significant.

White-Tailed Kite

Similar to the loggerhead shrike, potential foraging habitat is available for the white-tailed kite in the grasslands of the Triton Substation property and in portions of the route for the telecommunications lines. This species was observed in the survey area, and there is the potential for nesting in trees in the area. In particular, potential nesting for the species was noted near the area where there would be ground disturbance and other construction activity along Nicolas Road (e.g., trenching for the telecommunications line and excavation for TSPs). Impacts on this species could occur from general human disturbance and habitat removal of grasslands and trees during substation, telecommunications line, and subtransmission line construction activities. Pre-construction surveys for bird species and their

nests (PDF BIO-1 and 6), the use of biological monitors during construction (PDF BIO-3), and reductions in noise and lighting from the project (PDF BIO-9 and 10) would avoid and minimize impacts on this species from construction. To minimize impacts from project operations, the applicant would ensure that all subtransmission and distribution structures are designed according to current avian-safe practices (PDF BIO-4). Impacts on this species due to construction and operation of the project would be less than significant.

Spotted Bat

The Triton Substation property and portions of the route for the telecommunications lines contain potential foraging habitat for the spotted bat, but no suitable nesting or roosting habitat is available for this species. Given the poor forage habitat quality, the absence of roosting and nesting habitat, and the existing level of noise and lighting associated with most portions of the project area, this species is unlikely to use the project area and therefore, impacts on this species due to construction and operation of the project would be less than significant.

Burrowing Owl

The Triton Substation property and portions of the routes for the telecommunications lines and subtransmission line loop-in contain potential foraging and nesting habitat for the burrowing owl. The Triton Substation property provides potential forage habitat, but no nesting owls were found during protocol-level surveys. However, nesting owl pairs were observed near the route for the telecommunications lines (north of Auld Road), and suitable forage and nesting habitat exists throughout the routes for the telecommunications lines and subtransmission line loop-in. As part of the project, a pre-construction survey would be performed to determine the presence of burrowing owls (PDF BIO-7). PDF BIO-7 also describes the activities that would occur if burrowing owls are found.

In addition, vegetation clearing would not occur during the nesting season (PDF BIO-6). Therefore, through the implementation of PDF BIO-6 and PDF BIO-7, impacts on most of the burrowing owl habitat at the substation property and along the routes for the telecommunications lines and subtransmission line loop-in would be avoided, with the exception of the burrow found within 150 feet of the existing 115 kV Valley-Auld-Pauba subtransmission line. These PDFs are generally consistent with the *California Burrowing Owl Consortium Protocol* with respect to minimization of any impacts on nesting burrowing owls. However, PDF BIO-7 does not provide compensation for loss of potential active burrowing habitat that may occur and which would represent a significant impact. Implementation of MM BIO-5 and MM BIO-6 would reduce this potential impact to less than significant. MM BIO-6 describes compensatory measures, as well as provides guidance on consultation with CDFG if avoidance measures for the owl cannot be maintained.

Raptors and Nesting Birds Protected under the MBTA

Trees, shrubs, and seasonally tall grass at the substation property and in the vicinity of the routes for the telecommunications lines and subtransmission line loop-in provide suitable habitat for raptors and other nesting birds that are protected under the Migratory Bird Treaty Act (MBTA). Raptors and nesting birds protected under the MBTA that have been observed at or near the Triton Substation property include the common raven and the northern mockingbird. Neither of these species is listed as endangered or threatened. Survey crews located one common raven nest and two northern mockingbird nests approximately 300 to 500 feet east of the proposed substation footprint. Small ornamental trees adjacent to the Canine Substation site provide potentially suitable nesting habitat for birds that are protected under the MBTA and California Fish and Game code. As discussed above, white-tailed kite and coastal gnatcatcher have also been observed and may nest within the project area.

The applicant plans to clear vegetation at the substation property during the non-breeding season (between September 1 and January 31) to discourage nesting within the work area (PDF BIO-6). Pre-construction surveys for nesting birds (PDF BIO-1) would also be conducted should construction occur during the general nesting season (February 15 to August 31). With implementation of PDF BIO-1 and BIO-6, impacts on raptors and nesting birds protected under MBTA, specifically those nesting birds identified in the surveys, would be less than significant.

Orange-Throated Whiptail and Northern Red-Diamond Rattlesnake

Both of these species were observed within the survey area along the route for the telecommunications lines and suitable habitat exists for these species throughout the project area. Impacts on these species from the project could occur during Triton Substation clearing and grading, and during trenching and excavation activities. Impacts on the habitat for these species would be minimal due to the small disturbance footprint of the project and the ability of the animals to relocate to adjacent available habitat. If the animals are present during construction activities, the animals could be killed by moving vehicles and equipment, or become entrapped in trenches or excavation holes. These activities would be short in duration, and these species will be able to vacate disturbance areas. Pre-construction clearance surveys (PDF BIO-1) will help to avoid mortality to reptile species from construction activities. However, impacts on individuals of these species such as inadvertent mortality from vehicles and equipment or entrapment in trenches and excavations could still be significant. Implementation of MM BIO-4 and MM BIO-7 would reduce impacts to less than significant by ensuring avoidance of the animals through pre-construction surveys and allowing animals to vacate the work area. Measures to prevent entrapment or free animals that were entrapped (MM BIO-7) further minimizes potential mortality to individuals.

Summary

Several special status species and birds protected under the MBTA are present or their habitat is present in the project area. Implementation of PDF BIO-1 through PDF BIO-10 would limit potential impacts on these species. However, impacts potentially remain after implementation of these PDFs, such as the potential loss of active burrowing owl burrow and the potential loss of coastal sage scrub habitat. Therefore, additional mitigation measures MM BIO-1 through MM BIO-7 would decrease potential impacts on these sensitive resources to less than significant. The mitigation measures are as follows:

MM BIO-1: Limit removal of native vegetation communities. The applicant will avoid removal of intact coastal sage scrub, as determined by the onsite qualified biologist/biological monitor.

MM BIO-2: Best Management Practices (BMPs). BMPs to be prescribed by the Stormwater Pollution Prevention Plan (SWPPP) (PDF BIO-5) shall include but are not limited to the following:

- The applicant will use public roads and pre-existing, established routes for access to work areas for installation of the telecommunications lines.
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel within the proposed project footprint.
- The applicant shall not stockpile brush, loose soils, excavation spoils, or other similar debris material within sensitive habitats.
- The applicant will ensure proper handling of invasive native and non-native plant species removed during construction to prevent sprouting or regrowth.

MM BIO-3: Protection of Special Status Plant Species. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-8. The applicant will conduct

protocol-level botanical surveys within areas that contain habitat suitable to support special status plant species during the blooming season. These surveys will occur prior to construction to determine presence or absence of special status plant species of concern in areas where construction activity is planned. Desktop evaluation of soil types within the project area will be conducted prior to the pre-construction botanical survey to determine if suitable soils for special status plants are present. Special status plant species of concern include, but are not limited to, Munz's onion, San Diego ambrosia, Plummer's mariposa lily, intermediate mariposa lily, long-spined spineflower, and round-leaved filaree. Construction can occur within the area if these surveys show special status plants to be absent there.

The applicant will flag and avoid all project activities in areas where these surveys show special status plants to be present. The applicant will also report geo-referenced plant locations to the U.S. Fish and Wildlife Service and the California Department of Fish and Game (Wildlife Agencies). The applicant will implement avoidance measures including, but not limited to, the following:

- Flags will be placed to mark the boundaries of areas where special status plants are present near all areas where project activities are planned.
- The applicant will avoid the flagged areas and will not drive vehicles, go by foot, or place equipment or materials in any area with special status plants.
- Trenching to install telecommunications or other equipment will be conducted in existing, established access roads and other areas where special status plants are absent.
- Trenching will be conducted with equipment that is small enough to maneuver to avoid adjacent areas where special status plants are present.
- If special status plants are present in an area where trenching to install telecommunications or other equipment would be required to connect to an existing subtransmission structure, the applicant will identify and connect to an alternate structure where disturbance of special status plants can be avoided. This may require the applicant to extend the length of the trench to reach the alternate structure.

If the applicant cannot avoid construction activities in areas where there are special status plants present, then the applicant will become a Participating Special Entity (PSE) under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). As a PSE, the applicant will consult with the Wildlife Agencies, and the Western Riverside County Regional Conservation Authority (RCA) and follow the provisions set forth in the MSHCP, including but not limited to:

1. Conducting protocol-level surveys during the appropriate blooming season for "covered species" of concern
2. Submittal to the RCA of required documentation, including quantitative evaluations for the Determination of Biologically Equivalent or Superior Preservation (DBEST), as needed
3. Proposing and implementing mitigation measures developed in consultation with and approved by the Wildlife Agencies and the RCA

In consultation with the Wildlife Agencies and the RCA, the applicant will develop appropriate mitigation measures to reduce impacts on special status plant species to a less than significant level and consistent with provisions set forth in the MSHCP. Mitigation will include a tiered approach as summarized below and any other measures determined in consultation with the Wildlife Agencies and the RCA:

1. Preservation of 90% of the plant populations found within suitable habitat within the project area. Established, high quality populations known to occur within the project footprint will be avoided by construction and conserved 100%.

2. Depending on species and the likely success of replanting it, as determined through consultation with the Wildlife Agencies, as appropriate, plants will be relocated to a suitable replacement site. This will be accomplished by transplantation and seed/bulb collection within the project site. The applicant will relocate plants and/or seeds to adjacent areas that contain site specific requirements necessary for successful cultivation of the plant species. The applicant will identify appropriate replacement sites in consultation with the RCA. The applicant will prepare a quantitative evaluation for the DBEST based on survey results to determine the ratio of replacement conservation needed. The applicant will prepare a Revegetation Monitoring Plan that will be submitted to and approved by the RCA and Wildlife Agencies prior to initiating revegetation. The plan will outline transplanting activities, locations, monitoring requirements, and criteria to measure transplanting success.
3. The applicant will establish conservation easements on replacement site(s) to protect the populations in perpetuity.

MM BIO-4: Protection of Special Status Wildlife Species. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-1 and PDF BIO-3. If avoidance cannot be ensured (e.g., seasonal construction restrictions, passive relocation of the animal from the disturbance area, adjusting project footprint), the applicant will conduct protocol-level surveys prior to construction to determine presence or absence of special status wildlife species of concern in areas where suitable habitat occurs or is potentially present within the project area. Wildlife species of concern include, but are not limited to, coastal California gnatcatcher, loggerhead shrike, white-tailed kite, burrowing owl, Quino checkerspot butterfly, orange-throated whiptail, northern red-diamond rattlesnake, and the spotted bat. The protocol-level surveys will be conducted in areas where project activities could affect the species or their associated habitat including, as applicable, the substation property, the subtransmission line loop-in route, locations of wooden pole removal and new tubular steel pole installation, the Canine Substation, the telecommunications routes, other areas where there may be ground disturbance, and areas where noise may affect wildlife species.

The applicant's biological monitors will institute avoidance and construction activity monitoring measures as described in PDF BIO-3 to avoid potential impacts in areas where surveys show the presence of special status wildlife. The applicant will also report geo-referenced wildlife locations to the Wildlife Agencies.

If the applicant cannot avoid impacts on special status wildlife species, their associated habitat, and/or unique resources due to construction activities, then the applicant will become a PSE under the Western Riverside County MSHCP. As a PSE, the applicant will consult with the Wildlife Agencies, and the RCA and follow the provisions set forth in the MSHCP, including but not limited to:

1. Conducting protocol-level surveys during the appropriate season (e.g., nesting) for "covered species" of concern
2. Submittal to the RCA of required documentation, including quantitative evaluations for the DBEST, as needed
3. Proposing and implementing mitigation measures developed in consultation with and approved by the Wildlife Agencies and the RCA to reduce impacts on special status wildlife species to a less than significant level and as consistent with provisions set forth in the MSHCP

MM BIO-5: Protection of Quino Checkerspot Butterfly. In addition to PDF BIO-1 and PDF BIO-3, the Quino checkerspot butterfly will be further protected from potential project impacts by the following:

- The applicant will conduct pre-construction botanical surveys that will include observation for and identification of primary host plants for the Quino checkerspot butterfly. These plants include

plantain and white snapdragon, and may occur in association with coastal sage scrub and annual grasslands.

- The applicant will flag and avoid all project activities in any areas where potential host plant populations are found during pre-construction surveys.

MM BIO-6: Burrowing Owl Mitigation and Compensation. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-7. If impacts on the burrowing owl and/or their habitat (i.e., occupied burrows) are unavoidable, the applicant shall develop and implement a Burrowing Owl Compensation Plan, as approved by the Wildlife Agencies, that is consistent with mitigation guidelines as outlined in the *California Burrowing Owl Consortium Protocol*.

The plan shall describe the compensatory measures that will be undertaken to address the loss of burrowing owl burrows within the project area. This will include preservation of 6.5 acres of foraging habitat contiguous with occupied burrow sites per breeding pair or single bird. If avoidance of burrows cannot be maintained, onsite passive relocation of owls will be preferred over active relocation. To compensate for loss of burrows, the applicant will provide one alternate natural (enlarged or cleared of debris) or artificial burrow in nearby contiguous foraging habitat for each collapsed burrow within the project area. Prior to collapsing burrows vacated through passive relocation, the applicant's biological monitor will conduct daily monitoring for up to a 1-week period to confirm that the alternate burrows provided are being used by the owls. The applicant will not conduct active relocation unless the attempt at passive relocation has failed after 1 week. The applicant will obtain approval from the Wildlife Agencies before initiating any activities that have the potential to adversely impact burrowing owls.

MM BIO-7: Prevent the entrapment of wildlife. At the end of each workday during construction, the applicant will cover all open trenches or excavations to prevent the entrapment of wildlife (e.g., reptiles and small mammals). The applicant will maintain fencing around the covered excavations at night. The applicant's biological monitor will clear open trenches for wildlife at the end of each day, and again prior to resuming work on the trench.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Santa Gertrudis Creek and its associated riparian zone parallels the north side of Nicolas Road and is the closest water body to the Triton Substation property. The creek and riparian area are not located in the substation footprint and installation of the telecommunications lines would span the creek to avoid disturbance in these areas by construction activities. Potential expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be conducted within the substation and would not affect biological resources.

Creeks and drainages are present in portions of the route for the telecommunications lines and are currently traversed by existing access roads. Some of the drainages are culverted, while for others the dirt access roads directly cross over the drainages without any type of culvert. Additionally, a drainage ditch lies immediately parallel to and on the south side of Nicolas Road in the route for the subtransmission line loop-in. Direct and indirect impacts on drainages could occur from construction activities. Edge effects into Santa Gertrudis Creek from dust and sedimentation erosion could occur, affecting riparian vegetation as well. Driving vehicles through existing drainages could introduce contaminants into waterways and compact the beds and banks of those systems. Excavating for the installation of TSPs could require filling of or introduction of remnant sediment into the ditch, causing negative impacts on aquatic organisms and water quality.

The potential for inadvertent impacts on water bodies would be less than significant through the implementation of the PDFs designed to protect water features during and after construction (PDF BIO-2, PDF BIO-3, and PDF HYDRO-1 through PDF HYDRO-10). Specifically, the applicant would provide all construction personnel with environmental awareness training (PDF BIO-2) and adhere to best management practices (PDF BIO-3). The applicant would minimize or avoid impacts on hydrological features (PDF HYDRO-1 through PDF HYDRO-10) by developing and implementing a Storm Water Pollution Prevention Plan (PDF HYDRO-1) and a Spill Prevention, Control, and Countermeasure Plan (PDF HYDRO-4). In addition, the Triton Substation and new subtransmission TSPs would be designed and engineered to facilitate existing drainage patterns and to minimize or avoid any potential impacts due to erosion and siltation (PDF HYDRO-7). Additionally, with the implementation of MM BIO-8 and MM HAZ-1 impacts on riparian habitat and other sensitive habitat during construction or decommissioning activities would be reduced to less than significant.

MM BIO-8: Construction work will be performed outside the bed, banks, and riparian zones of drainages, wetlands or water bodies. The applicant's construction crews will not cross non-culverted drainages with vehicles, nor conduct construction activities or placement of equipment or supplies within the bed, bank or riparian zone of any drainage, wetland, or water body. If construction activities require non-culverted drainages to be crossed, crews will traverse them by foot only, and use pre-existing, established access roads that circumvent non-culverted drainages for vehicle travel.

c. Would the project 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?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction and operation of the project, including decommissioning of the Canine Substation, are not likely to have an adverse effect on federal or state protected wetlands as defined by sections 404 and 401 of the Clean Water Act because no jurisdictional wetlands or vernal pools were found within the project area. The June 2008 field survey did not identify potential jurisdictional drainages or wetlands present on the substation property (BonTerra 2008). No wetlands or vernal pools were identified along the route for the telecommunications line and the subtransmission line loop-in during surveys conducted in 2009 (BonTerra 2009a). Potential expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be conducted within the substation and would not affect biological resources.

The ditch located along the south side of Nicolas Road that receives runoff was additionally evaluated for the potential presence of vernal pools or wetlands capable of supporting fairy shrimp. Habitat assessment of the area concluded that no vernal pools or wetlands are associated with the ditch based on an evaluation of soils and plant communities (BonTerra 2009a). Riverside fairy shrimp (Streptocephalus woottoni) are found in the Temecula area of Riverside County (NatureServe 2009); however, the lack of vernal pools within the project area precludes the presence of fairy shrimp. One seasonally ponded area that is a potential vernal pool is located northeast of the Auld Substation; however, this feature lies outside of areas that would be affected by the project.

The telecommunications lines would span drainages located along the ROW for the existing 115 kV subtransmission line via existing poles. Construction crews would complete installation of the telecommunications line either on foot or from vehicles that would remain on established access roads or other disturbed, vegetation-free areas.

A pre-construction survey would be performed 30-days prior to construction (PDF BIO-1). If any vernal pools or wetlands are found that had not been evident in prior surveys due to drought conditions, the

applicant would consult with the U.S. Army Corps of Engineers, USFWS and CDFG. PDF BIO-2, PDF BIO-3, and PDF BIO-5 would also be implemented to further avoid and minimize potential impacts should any wetland features be found during pre-construction surveys. Impacts on wetlands or vernal pools could be significant, but implementation of MM BIO-8 and MM-HAZ-1 would mitigate impacts to a less than significant level by keeping construction activities outside the boundaries of any wetland, riparian zone, or vernal pool.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction and operation of the project, including decommissioning of the Canine Substation, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, or native wildlife nursery sites. The project area does not pass through any established wildlife corridors or conservation easements, although it is within the regional area undergoing conservation considerations under the Western Riverside County MSHCP. The Triton Substation property and the subtransmission line loop-in are both located in a semi-rural area of Riverside County. Santa Gertrudis Creek only flows seasonally and during rain events, and does not support fish near the project area. Potential expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be conducted within the substation and would not affect biological resources.

The telecommunications lines would cross areas along the route for the existing 115 kV subtransmission line that could potentially be used by native or sensitive species for migration or movements. These areas are already used by various entities for access and by the applicant for on-going maintenance activities on the existing subtransmission line. Current anthropogenic disturbances (e.g., noise, human presence, vehicle and equipment use) would not be appreciably increased by installation of the telecommunications lines, and project construction would be minimal, temporary, and short in duration for any given area. However, if construction were to occur in sensitive habitats within the route, such as the bed, bank, channel, or riparian zone of a drainage, a wetland, or coastal sage scrub, or host plant population for the Quino checkerspot butterfly, then disturbances would be significant and potentially impede or harm migratory species. Implementation of MM BIO-1 and MM BIO-8 would reduce potential impacts to less than significant because construction crews would complete installation of the telecommunications lines either on foot or from vehicles that would remain on disturbed, vegetation-free areas and established access roads outside the bed and banks of drainages. Also, trenching for the telecommunications line and excavation for the subtransmission line loop-in would likewise be conducted outside of drainages and be short-term in duration and spatial extent.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

NO IMPACT. Construction and operation of the project, including decommissioning of the Canine Substation, would not conflict with any local policies or ordinances protecting biological resources. The City of Temecula has recently approved a Heritage Tree Ordinance (City of Temecula 2009) protecting mature trees, however, public utilities are exempt from this ordinance.

The County of Riverside Tree Ordinance regulates the removal of trees in unincorporated areas of the county above 5,000 feet in elevation (Riverside County 2009); the project is at an elevation of about 1,150 feet, and therefore this ordinance would not apply to any portion of the project.

Activities associated with the operation and maintenance of the substation and all subtransmission and telecommunications lines are exempt under local ordinances. Operation and maintenance of the project would, therefore, result in no impact under this criterion.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project is located within the area covered by the Western Riverside County MSHCP. As a public utility provider operating within the Western Riverside County MSHCP, the applicant has the option to become a PSE and may request take authorization for its activities pursuant to the Western Riverside County MSHCP. The applicant does not anticipate needing to apply for a take permit during the construction or operation of the project, including decommissioning of the Canine Substation, as they anticipate avoiding impacts on sensitive and protected resources. If pre-construction surveys indicate the presence of a special status species that the applicant cannot avoid during construction or decommissioning through implementation of PDFs or by adjusting the project footprint, then the project could be inconsistent with the Western Riverside County MSHCP unless the applicant opted to become a PSE. Potential expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be conducted within the substation and would not affect biological resources or conservation plans.

Through implementation of MM BIO-3 and MM BIO-4 this potential impact would be reduced to less than significant because the applicant would become a PSE and seek take authorization through the Western Riverside County MSHCP if sensitive species cannot be avoided. Although the applicant does not plan to become a PSE under the Western Riverside County MSHCP unless necessary, they have completed initial surveys and analysis for sensitive and protected species and habitats which are consistent with Western Riverside County MSHCP. Surveys on portions of the project for plants and wildlife were completed according to CDFG protocol-level requirements for special status plants, burrowing owl, and coastal California gnatcatcher. Additional pre-construction surveys for special status plants and wildlife would also be completed according to CDFG protocol-level requirements, as applicable, as outlined in the PDFs.

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3.5 Cultural Resources

Table 3.5-1 Cultural Resources Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

3.5.1 Setting

Prehistoric Context

The prehistory of the project area is derived from information of regional patterns that include the Early Holocene Period (10,000–7000 Before Present [B.P.]), Middle Holocene Period (7000–3500 B.P.), and the Late Holocene Period (3500–200 B.P.).

The earliest inhabitants of the region, in Early Holocene Period, are often referred to as the San Dieguito culture, and are generally thought of as megafauna or big game hunters (Rogers 1939; Warren 1967). Artifacts from this period are characterized by stone tools and large projectile points. Ground stone implements are common during the Middle Holocene period. Late Holocene Period archaeological sites generally contain a more diverse range of resources than the proceeding periods. The San Luis Rey culture is common in the Temecula Valley during the Late Holocene; this culture is thought to be ancestral to the Luiseño who were present at the time of European contact.

Ethnographic Context

At the time of Spanish contact, the project area was occupied by several autonomous lineages of Luiseño Indians who had divided the valley and surrounding hillsides into tracts of land identified with specific village territories (Bean and Shipek 1978; Du Bois 1908; Kroeber 1907, 1908; Phillips 1975; Shipek 1977; Sparkman 1908; Strong 1929).

The Pechanga Band of Luiseño Indians, the Santa Rosa Band of Mission Indians, the Soboba Band of Luiseño Indians, and the Cahuilla Band of Indians are currently associated with the project area. The Pechanga Tribe identifies the project area as part of the Tribe's aboriginal territory and regard Luiseño place names and Luiseño artifacts in the vicinity of the project (Miranda 2009). Pechanga elders state that the Temecula Pechanga people had usage and gathering rights to an area extending from Rawson Canyon on the east, over to Lake Mathews on the northwest, from Temescal Canyon to Temecula, eastward to Aguanga, and then along the crest of the Cahuilla range back to Rawson Canyon. The project area is located within the south central area of the Pechanga Tribe's culturally affiliated territory. The Soboba Tribe also regards the project area as highly sensitive because it is in close proximity to known

village sites and is in a shared use area that was used in ongoing trade between the Luiseño and Cahuilla Tribes (Ontiveros 2009).

Historical Context

The Spanish Mission period in Riverside County began with the Spanish exploration of the area in 1769 and the establishment of the San Diego Presidio and the Missions in San Diego, San Luis Rey, and San Juan Capistrano. The area was first explored by Juan Bautista de Anza in 1774 when his expedition camped along the San Jacinto Valley. The county's first European resident, Leandro Serrano, obtained permission from the padres at Mission San Luis Rey to take five leagues of land in Temescal Valley in 1818.

The construction of the California Southern Railroad in the late 1800s led to a large influx of new residents as town sites sprouted up along the rail line. The railroad extended from San Diego to San Bernardino by way of Temecula. "Old Town" Temecula was initially constructed as a materials depot and camp for laborers working on the grade in Temecula Canyon (Hudson 1989; Lech 2004).

In the late 1800s, shepherding was becoming a new agricultural industry in Southern California. Temecula Valley became a nexus for grain and cattle shipping in the early 20th century. Dry-land farming was also practiced on a wide scale (Lech 2004). Ranching was an important means of income for many of the homesteads in Temecula. One of the largest cattle ranches in Temecula was the Vail Ranch, which operated from 1905 to 1965 and covered 87,500 acres of land around the downtown of Temecula.

Nicolas Family History

The Nicolas family is one of the earliest families in Temecula, and the farmstead owned by cattle rancher Joseph Nicolas, Sr., was likely one of the first ranching farmsteads in the area. In an area now known as Nicolas Valley, the farmstead was once 1,200 acres, but the property has since been subdivided. SCE currently owns the four parcels (approximately 20 acres) at the southeast corner of Nicolas Road and Calle Medusa, where the main Nicolas homestead was originally situated. SCE proposes to use the two westernmost of the four parcels for the Triton Substation.

Joseph Nicolas, Sr., was born in Chabotonnes, France in 1849, and he settled in the Temecula area circa 1880s. He was married to Zemima Nicolas. Joseph and Zemima had one son, Joseph Nicolas, Jr., and two daughters, Clementine and Jessie. Joseph Nicolas, Jr., was born in 1886 in Temecula. Joseph Nicolas, Jr., and his wife Seraphina (née Dominigoni), who married circa 1900, had four daughters: Jessie, Margaret, Helen and Nathaline.

When Joseph Nicolas, Jr., inherited the ranch the main form of income became shepherding. Joseph Nicolas, Jr., died in 1952 and all 1200 acres of the ranch was passed to his surviving wife, Seraphina. When she passed away in 1963, the four daughters inherited the property. The four daughters have sold most of the property, which has been subdivided into smaller parcels.

The Nicolas family had an adobe building from the time Joseph Nicolas, Sr., owned the land. It is unknown who built the adobe, but it remained on the land until 1946, when the kerosene stove exploded and burned the building to the ground. Very close in proximity to the adobe was a frame building constructed for Joseph Nicolas, Jr., and his wife shortly after they were married. It also burned to the ground in the fire, and none of the original homestead buildings remain. These buildings were both located on the easternmost of the four SCE parcels.

Structures currently on the two westernmost of the four parcels, where SCE proposes to construct the Triton Substation, are two vacant mobile homes (circa 1980s), a wood shed, and a grain storage bin (circa 1950). Structures currently on the two easternmost of the four parcels are a vacant residence built after the fire (circa 1946) and ancillary building (circa 1960), a shed (circa 1930), and a vacant mobile home. There were tenants in the residence and mobile homes on the property until 2009.

While construction of the substation would not necessitate removal of most of the structures on the four parcels, SCE may choose to remove them for security purposes. Depending on final substation design, removal of the grain storage bin may be required for construction of the substation.

Aerial photographs show that the surrounding area remained primarily agricultural land through as late as 1975. Up to this time, the Nicolas ranch and surrounding area was mainly open space for harvesting grain and grazing cattle and sheep.

Paleontological Context

The Murrieta region is located upon surface exposures of two distinct lithological units: the sandstone member of the Pauba Formation and Quaternary alluvial channel deposits. Of these lithologies, the Quaternary alluvial channel deposits have low potential to contain significant fossil resources, while the Pauba Formation is highly fossiliferous throughout its extent.

The Triton Substation site and the area along Nicolas Road where excavation for the subtransmission line loop-in would occur are located on surficial deposits of Quaternary alluvial channel deposits. These deposits occur along the floors of canyons which incise the older hills and bluffs formed by the Pauba Formation. Although these alluvial channel deposits have low potential to contain significant nonrenewable paleontological resources, these deposits likely overlie the Pauba Formation and/or an unnamed sandstone at depth. These older sediments would have high potential to contain significant nonrenewable paleontological resources.

No previously-known paleontologic localities are recorded for the Triton Substation site or the subtransmission line loop-in. However, more than 400 paleontologic resource localities are known from the Pauba Formation and an underlying unnamed sandstone and conglomerate formation in the Murrieta and Temecula areas. Four paleontological localities within 0.25 to 0.5 miles from the project area have produced fossil vertebrates including two species of ground sloth, mammoth, mastodon, two species of horse, tapir, camel, llama, pronghorn, dire wolf, short-faced bear and sabre-toothed cat. The deposits have also yielded important small vertebrate fossils including rodent, rabbit, bat, shrew, bird, lizard, turtle, and tortoise. The abundance of these fossils from this area demonstrates a high paleontologic sensitivity of the region.

City of Murrieta General Plan

The Conservation and Open Space Element of the City of Murrieta General Plan contains the following goals, objectives, and policies for cultural and paleontologic resources:

> *Goal COS-5 Cultural/Historic Resources:* Protect and enhance cultural and historic resources and develop those opportunities which will serve the cultural needs and identity of the community.
>
> *Objective COS-5.2 Archaeologic/Paleontologic/Historic Preservation:* Preserve Murrieta's paleontologic and archaeologic resources, as well as historic sites, structures, and landscape features as a legacy from the City's past and as unique characteristics that shape the community's identity.

Policy COS-5.2a: Produce, adopt, and update a Historic Resources Inventory. A comprehensive survey of historic resources within the General Plan Area, conducted in conformance with state survey standards and guidelines, shall provide the basis for the inventory.

Policy COS-5.2c: To the extent feasible, preserve historically and architecturally significant sites, structures, and landscape features throughout the community and encourage appropriate adaptive reuse of historic structures and sites in order to prevent disuse, disrepair, and demolition.

Policy COS-5.2e: Establish a Murrieta Historic and Scenic Preservation Commission whose responsibilities shall be defined in the City Historic and Scenic Preservation Ordinance.

Policy COS-5.2j: Recognize the importance of Native American resources to our understanding of the past and ensure the identification and protection of these resources within the City of Murrieta.

Policy COS-5.2l: To protect significant cultural resources in the City, the Planning Department should, as part of the environmental review process, forward descriptions of proposed projects to the Eastern Information Center (EIC) at U.C. Riverside for an assessment to determine resource significance and the need for any mitigation (i.e., surveying, testing, data recovery, or monitoring).

Policy COS-5.2m: In order to protect paleontologic resources in the City, projects located within the High Sensitivity area shown on the Paleontologic Sensitivity Map that would involve grading of previously undisturbed parcels (i.e., no excavation or trenching) should be required to prepare and complete a standard paleontologic resource mitigation program. For projects located within the area designated Undetermined Sensitivity a field survey conducted by a qualified paleontologist should be required to determine if resources would be impacted by excavation. If the potential for impacts on paleontologic resources exists, a standard paleontologic resource mitigation program would be prepared and completed.

Policy COS-5.2n: In the event that any archaeologic or paleontologic resources are discovered during site excavation or construction, all activities affecting the site shall cease, and the contractor shall contact the City Planning Department. The Planning Department shall follow environmental review procedures to determine significance of the resources and appropriate mitigation measures.

Objective COS-5.3 Landscape Features: Recognize, identify, and protect landscape features for their cultural and historic value.

Policy COS-5.3a: Inventory historic landscape features including roads, trails, trees, groves, gardens, open spaces, ridges, boulders, creekbeds, and viewsheds.

City of Temecula General Plan

The City of Temecula General Plan contains the following goals, objectives, and policies for cultural and paleontologic resources:

Goal 6- Historical And Cultural Resources: Preservation of significant historical and cultural resources.

Policy 6.1: Maintain an inventory of areas with archaeological/paleontological sensitivity, and historic sites in the Planning Area.

Policy 6.2: Work to preserve or salvage potential archaeological and paleontological resources on sites proposed for future development through the development review and mitigation monitoring processes.

Policy 6.4: Assist property owners in seeking State and/or federal registration and appropriate zoning for historic sites and assets.

Policy 6.5: Pursue the acquisition and preservation of historical buildings for public facilities in accordance with the Old Town Specific Plan when appropriate.

Policy 6.6: Ensure compatibility between land uses and building designs in the Old Town Specific Plan Area and areas adjacent to Old Town.

Policy 6.8: Support an integrated approach to historic preservation in coordination with other affected jurisdictions, agencies, and organizations for areas within the Planning Area and surrounding region that seeks to establish linkages between historic sites or buildings with other historic features such as roads, trails, ridges, and seasonal waterways.

Policy 6.9: Encourage the preservation and re-use of historic structures, landscape features, roads, landmark trees, and trails.

Policy 6.10: Work with the Pechanga Band of Luiseño Indians to identify and appropriately address cultural resources and tribal sacred sites through the development review process.

Policy 6.11: Encourage voluntary landowner efforts to protect cultural resource and tribal sacred sites consistent with state requirements.

The City of Temecula General Plan Programs includes the following actions, procedures, strategies and techniques to implement the goals and policies for cultural and paleontologic resources:

OS-27 Historic Preservation Program: Continue to implement a historic preservation ordinance in the Old Town area to protect historically significant buildings, sites, road/trails, and other landscape elements, and to encourage their reuse, where appropriate. Consider adopting an ordinance to address preservation of other historic resources. Encourage owners of local sites to apply for recognition in the State Historic Resources Inventory, as Riverside County Landmarks, as State Points of Historic Interest, as State Landmarks, and as sites on the National Register of Historic Places, as deemed necessary

OS-39 Tribal Cultural Resources: Development projects proposed on previously undeveloped property which involve earth-disturbing activities or which are located in areas with previously identified cultural resources need to comply with the following requirements to appropriately address tribal cultural resources:

- All projects shall be evaluated by a qualified archeologist by conducting a site records search, and if feasible, a Phase I walkover survey, and if necessary, a Phase II survey prior to project approval to identify the potential for the presence of significant cultural resources.
- If significant resources are located on the project site, or a high probability for cultural resources exists, the Pechanga Band of Luiseño Indians shall be consulted in the identification of mitigation measures to address impacts consistent with State requirements, including provisions to address inadvertent discoveries.
- During on-site grading activities in areas with cultural resources, or with a high potential for cultural resources, a qualified archeologist and tribal monitors shall be on-site to monitor grading operations.
- In the event of the discovery of a burial site, human bone or suspected human bone, grading in the immediate area shall be immediately halted, the site protected, and the County Coroner and representatives from Pechanga Band of Luiseño Indians notified.

OS-26 Development Review Process: Use the development and environmental review processes to:

- Ensure that appropriate archaeological and paleontological surveying and documentation of findings is provided prior to project approval.
- Require effective mitigation where development may affect archaeological or paleontological resources.
- Require that an archaeologist or paleontologist be retained to observe grading activities in areas where the probable presence of archaeological or paleontological resources is identified.
- Enforce CEQA provisions regarding preservation or salvage of significant archaeological and paleontological sites discovered during construction activities.
- Require monitoring of new developments and reporting to the City on completion of mitigation and resource protection measures.

Cultural Resource Survey and Historic Resources Evaluation

No cultural resources properties and no properties on the National Register of Historic Places (NRHP) or Office of Historic Preservation are recorded within project boundaries (Earth Tech 2007). No cultural resources were identified during a June 28, 2008, pedestrian survey of the Triton Substation site (Earth Tech 2008). While the site had previous ground disturbance, surveyors also identified that some of the natural topography remains, and there is some potential for buried resources to exist.

To address concerns about the potential for historic resources to be present on the substation site, in particular to evaluate the potential for the remains of a former adobe building to be present, the applicant conducted a historic resources evaluation in 2009 (GPA 2009). Existing buildings and structures on the four parcels owned by SCE at the southeast corner of Nicolas Road and Calle Medusa were evaluated for historic significance. The evaluation considered criteria for eligibility for listing in the NRHP and the California Register of Historical Resources (CRHR).

The Historic Resource Evaluation Report concluded that the property does not qualify for the NRHP or CRHR under any of the criteria. The State Historic Preservation Officer (SHPO) did not object to the report's conclusion that the resources evaluated are not considered historical resources. Further, the SHPO did not object to the conclusion that they do not meet eligibility criteria for listing on the NRHP or CRHR (Donaldson 2009).

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on cultural resources. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF CUL-1: Cultural Resources Worker Environmental Awareness Program Training

PDF CUL-2: Historic and Archaeological Monitoring

PDF CUL-3: Human Remains Stop Work

PDF CUL-4: Native American Consultation and Monitoring

PDF CUL-5: Paleontological Monitoring and Stop Work

3.5.2 Environmental Impacts and Mitigation Measures

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. No known historical resources are located on the Triton Substation site, the subtransmission line loop-in route, the telecommunications line routes, or the site of the existing Canine Substation. Much of the Triton Substation site and all of the Canine Substation have been previously disturbed. New trenching for the telecommunications line along Nicolas Road would occur on land that has been disturbed previously. Near the existing subtransmission line, new trenching for the telecommunications line would cross the south shoulder of Nicolas Road and then proceed south for about 350 feet underground in the subtransmission line right-of-way (ROW). Trenching would also occur for a short distance (less than 50 feet) down Calle Golibri (between Calle Medusa and the existing subtransmission line ROW). The remainder of the telecommunications lines would be placed on overhead structures or in existing underground conduit and no ground disturbance would be required. Operation and future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would not involve the disturbance of subsurface soils.

If unanticipated historical resources are encountered during ground-disturbing construction activities, the resources could be damaged or destroyed. PDF CUL-1 would ensure that all construction crews and contractors are trained to follow a specific protocol in the event that historical resources are encountered during construction of the project. Under PDF CUL-2, a qualified archaeologist would conduct full-time monitoring of all project areas where ground-disturbing activities would occur. The monitor would ensure that construction activities were suspended to inspect areas where ground disturbance has revealed potential historical resources. Under PDF CUL-4, the Native American most likely descendant(s), as determined by the Native American Heritage Commission (NAHC), would be consulted prior to construction and invited to voluntarily observe ground disturbing activities and offer recommendations to the monitor.

Operation and future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would have no impact on historical resources. With implementation of MM CUL-1, potential impacts on historical resources from ground-disturbing construction activities, including decommissioning of the Canine Substation, would be reduced to less than significant.

> **MM CUL-1: Unanticipated Discovery**. If unanticipated resources are discovered during construction monitoring that are identified as potential historical or archaeological sites, the qualified archaeological monitor will suspend all construction activities in the vicinity of the find to evaluate the resource. The evaluation may require a subsurface testing and evaluation program for cultural resources. If remains prove to be significant and site avoidance cannot be implemented through project redesign, the applicant will implement a data recovery program to mitigate impacts.
>
> If potential paleontological resources are discovered during construction, the qualified paleontological monitor will suspend all construction activities in the vicinity of the potential resource to examine the resource and determine the proper method to avoid adverse effects on the resource. At the paleontological monitor's discretion, the area in the vicinity of the potential resource may be flagged for avoidance or the potential resource may be removed from the site by plaster jacketing, taking a sample of the potentially fossiliferous formation, or, if necessary, excavation. Recovered specimens that are determined to be important paleontological resources

will be prepared to the point of curation, including the washing of sediments to recover small invertebrates or vertebrates, and stabilized to mitigate impacts. In the event that recovered specimens are determined to be important paleontoligcal resources, the applicant will prepare and execute a written repository agreement with an established, accredited museum repository, and all important paleontological specimens will be curated. To document that adverse impacts on paleontological resources were mitigated, the applicant will prepare a report of findings with an itemized inventory of specimens and submit the report to the CPUC along with confirmation of the curation of recovered specimens into an established, accredited museum repository.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. No known archaeological resources are located on the Triton Substation site, the subtransmission line loop-in route, the telecommunications line routes, or the site of the existing Canine Substation. Much of the Triton Substation site and all of the Canine Substation have been previously disturbed. New trenching for the telecommunications line along Nicolas Road would occur on land that has been disturbed previously. Near the existing subtransmission line, new trenching for the telecommunications line would cross the south shoulder of Nicolas Road and then proceed south for about 350 feet underground in the subtransmission line ROW. Trenching would also occur for a short distance (less than 50 feet) down Calle Golibri (between Calle Medusa and the existing subtransmission line ROW). The remainder of the telecommunications lines would be placed on overhead structures or in existing underground conduit and no ground disturbance would be required. Operation and future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would not involve the disturbance of subsurface soils.

If unanticipated archaeological resources are encountered during ground-disturbing construction activities, the resources could be damaged or destroyed. PDF CUL-1 would ensure that all construction crews and contractors are trained to follow a specific protocol in the event that archaeological resources are encountered during construction of the project. Under PDF CUL-2, a qualified archaeologist would conduct full-time monitoring of all project areas where ground-disturbing activities would occur. The monitor would ensure that construction activities were suspended to inspect areas where ground disturbance has revealed potential archaeological resources. Under PDF CUL-4, the Native American most likely descendant(s), as determined by the NAHC, would be consulted prior to construction and invited to voluntarily observe ground disturbing activities and offer recommendations to the monitor.

Operation and future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would have no impact on historical resources. With implementation of MM CUL-1, potential impacts on archaeological resources from ground-disturbing construction activities, including decommissioning of the Canine Substation, would be reduced to less than significant.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. No previously-known paleontologic localities are recorded for the Triton Substation site or the subtransmission line loop-in, but the project area is considered to have high paleontologic sensitivity. Areas where excavation would occur are located primarily on surficial deposits of Quaternary alluvial channel deposits, which have a low potential to contain significant fossil resources. However, these areas may overlie the Pauba Formation and/or an unnamed sandstone, which have high potential to contain significant nonrenewable paleontological resources.

If unanticipated paleontological resources are encountered during ground-disturbing construction activities, the resources could be damaged or destroyed. Under PDF CUL-5, a qualified paleontologist would conduct full-time monitoring of all project areas where ground-disturbing activities would occur. The monitor would ensure that construction activities were suspended to inspect areas where ground disturbance has revealed potential paleontological resources.

Operation and future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would have no impact on paleontological resources. With implementation of MM CUL-1, potential impacts on paleontological resources from ground-disturbing construction activities, including decommissioning of the Canine Substation, would be reduced to less than significant.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT IMPACT. The project does not cross known cemeteries or burial grounds. No known cultural resources sites are located on the Triton Substation site, the subtransmission line loop-in route, the telecommunications line routes, or the site of the existing Canine Substation. Encountering human remains is not anticipated because most of the areas where ground disturbance would occur are in areas where there has been previous disturbance.

Much of the Triton Substation site and all of the Canine Substation have been previously disturbed. New trenching for the telecommunications line along Nicolas Road would occur on land that has been disturbed previously. Near the existing subtransmission line, new trenching for the telecommunications line would cross the south shoulder of Nicolas Road and then proceed south for about 350 feet underground in the subtransmission line ROW. Trenching would also occur for a short distance (less than 50 feet) down Calle Golibri (between Calle Medusa and the existing subtransmission line ROW). The remainder of the telecommunications lines would be placed on overhead structures or in existing underground conduit and no ground disturbance would be required. Operation and future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would not involve the disturbance of subsurface soils.

PDF CUL-1 would ensure that all construction crews and contractors are trained to follow a specific protocol in the event that human remains are encountered during construction of the project or decommissioning of the Canine Substation. PDF CUL-3 would ensure that work is stopped within a 15-meter radius of the remains and no further disturbance occurs until the Riverside County Coroner and a qualified archaeologist have assessed the remains. PDF CUL-3 also would ensure that specific guidelines would be followed for the treatment of human remains that are determined to be Native American. Therefore, the project would result in a less than significant impact under this criterion.

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3.6 Geology and Soils

Table 3.6-1 Geology and Soils Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.6.1 Setting

The project would be located in the Santa Gertrudis Valley within the southwestern edge of the Perris Block portion of the Peninsular Ranges Geomorphic Province of California. The project crosses a rural residential area called Nicolas Valley. Santa Gertrudis Creek is a key feature in the area. The geomorphic province is characterized by northwesterly trending mountain ranges, bounded by systems of northwesterly trending faults and alluvial-filled basins. The Perris Block is bound on the north by the eastern San Gabriel Mountains, on the west by the Santa Ana Mountains, and on the east by the San Jacinto Mountains. These mountains are separated from the Perris Block by the Cucamonga Fault, the Elsinore Fault zone, and the San Jacinto Fault zone, respectively (Kennedy and Morton 2003; Morton 2003; Morton and Kennedy 2003; Morton and Matti 2001). Elevations in the project area range from 1,150 to 1,180 feet above sea level.

Geology

Regionally, Mesozoic metamorphic and plutonic rocks and Cenozoic sedimentary and volcanic rock formations form hills of low to moderate relief. The project is located within the Santa Gertrudis Valley area, which represents a structural depositional depression that has undergone erosion and the filling in of sediments from the surrounding granitic bedrock outcrops and the San Jacinto Mountains. The project

area is underlain by young alluvial channel deposits and sandstone bedrock of the Pauba Formation. A summary of the geologic units is presented in Table 3.6-2.

Table 3.6-2 Geologic Conditions

Geologic Unit/Structure	Name / Type / Age	Description / Comments
Qya	Young alluvial channel deposits (Holocene and latest Pleistocene age)	Fluvial deposits along canyon floors. Consists of unconsolidated sand, silt, and clay-bearing alluvium.
Qpfs	Pauba Formation sandstone (Pleistocene age)	Brown, moderately well-indurated, cross-bedded sandstone containing sparse cobble- to boulder-conglomerate beds.

Source: Morton and Kennedy 2003

Geologic Hazards

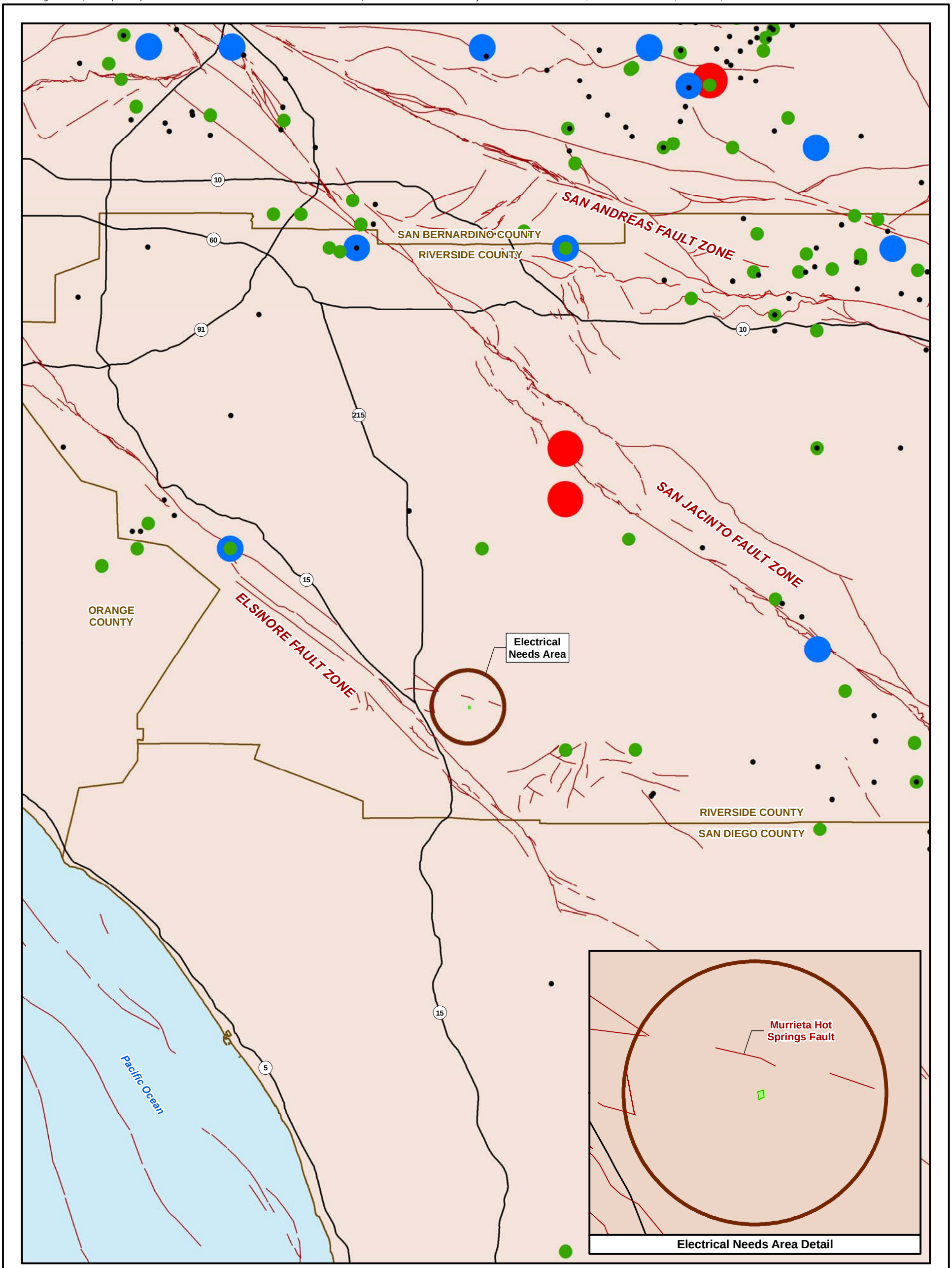
The project route crosses a seismically very active area given the proximity and number of potential seismic sources. Figure 3.6-1 presents a regional fault and epicenter map and the approximate location of the project relative to seismic sources and past earthquakes. Though no known active fault or potentially active fault crosses the Triton Substation site, the telecommunications lines would cross the Murrieta Springs Fault, an east-west trending fault segment of the Elsinore Fault Zone. Although the Murrieta Springs Fault is not considered an Alquist-Priolo Earthquake Fault Zone, it is considered a potentially active fault.

The U.S. Geological Survey (USGS) has developed Probabilistic Seismic Hazard Assessment models that depict ground motions associated with a 10 percent probability of exceedance in a 50-year period. Seismic shaking experienced at a specific location depends on many factors such as distance from the epicenter of the earthquake, the response of the underlying soils, and the characteristics of the structures being shaken. Structures located on thick, poorly consolidated materials commonly experience higher levels of shaking and subsequent damage than structures built on more stable and consolidated bedrock. The degree of seismic shaking (as ground acceleration) is measured as a percent of gravity (g). The anticipated acceleration in the project area that has a 10 percent probability of being exceeded in 50 years is approximately 0.36 g (USGS 2008).

Additionally, in accordance with the California Building Code and American Society of Civil Engineers 7-05 Standard (ASCE 2005), the applicant determined site-specific seismic coefficients using the USGS Earthquake Motion Parameters Version 5.0.8 program (USGS 2007). The seismic site co-efficient determined under the new code for Maximum Credible Earthquake ground motion and Design Earthquake ground motion were 1.500 g for 0.2 second Short Period Spectral Response, Ss/Short Period Spectral Response, SDs, and 0.600 g for 1 second Spectral Response, S1/1 second Spectral Response, SD1 (SCE 2008).

Severe ground shaking can trigger landslides, cause fissures and cracks to open in the ground, and cause loose, saturated materials to liquefy. Liquefaction susceptibility reflects the relative resistance of soils to loss of strength when subjected to ground shaking, and occurs primarily in saturated, loose, fine-to-medium grained soils in areas where the groundwater table is within approximately 50 feet of the ground surface. Shaking causes the soils to lose strength and behave as a liquid.

Reference: *Figure 4.6-2, Earthquake Epicenters and Fault Lines Near the Electrical Needs Area", Triton Substation Preliminary Environmental Assessment*, Southern California Edison, November 21, 2008



LEGEND

- Fault line
- Major highway
- County boundary
- Electrical Needs Area
- Triton Substation site

Earthquake Epicenters
Magnitude - Richter Scale

- < 4.5
- 4.5 - 5.4
- 5.5 - 6.4
- > 6.5

N

0 — 68,640 Feet
0 — 13 Miles

Sources: Southern California Edison; Riverside County; California Geological Survey; Environmental Systems Research Institute

Figure 3.6-1

Regional Fault Line and Earthquake Epicenter Map

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Riverside County has designated the project area as being susceptible to subsidence (Riverside County 2003). The area has a low to locally moderate susceptibility to seismically induced landslides and rock falls, and there is moderate potential for liquefaction. Expansive soils can be widely dispersed and can be found in hillside areas as well as low-lying alluvial basins in the County. The project area is not on a hillside or within a low-lying alluvial basin. Testing conducted on the substation site indicated a very low to low soil expansive index (SCE 2008). In Riverside County, collapsible soils occur predominantly at the base of mountains, where Holocene-age alluvial fan and wash sediments have been deposited during rapid runoff events (Riverside County 2003).

Soils

The soils in the project area reflect the underlying rock type, the extent of weathering of the rock, the degree of slope, and the degree of modification by humans. Characteristics and description of the major soil units underlying the Triton Substation and subtransmission line loop-in areas are presented in Table 3.6-3. Soil erosion hazards are anticipated to be slight to moderate in the project area except for an area of very fine sandy loam with slopes of up to 8 percent that may be encountered along the subtransmission line loop-in.

Table 3.6-3 Soil Types and Characteristics

Soil Series or Association	Description	Hazard of Erosion	Shrink-Swell Potential
Triton Substation and Duct Banks			
Ramona (RaA)	Sandy Loam, 0 to 2 percent slopes	Moderate	Low
Hanford (HgA)	Fine Sandy Loam, 0 to 2 percent slopes	Slight	Low
Riverwash (Rsc)	Sandy, cobbly, or gravel riverwash material	Slight	Low
Greenfield (gyC_2)	Sandy Loam, 2 to 8 percent, eroded	Moderate	Low
Arlington and Greenfield (AtD_2)	Fine Sandy Loam, 8 to 15 percent slopes, eroded	Moderate	Low
Rough Broken Land (RuF)	Dissected by drainages so that no recognizable soils are identified	NR	Low
Subtransmission Line Loop-In			
Ramona (RaA)	Sandy Loam, 0 to 2 percent slopes	Moderate	Low
Riverwash (Rsc)	Sandy, cobbly, or gravel riverwash material	Slight	Low
Ramona (ReC_2)	Very Fine Sandy Loam, 0 to 8 percent slopes, eroded	High	NR

Source: USDA 2009
Note:
Erosion hazard descriptors:
Slight = little or no erosion is anticipated
Moderate = some erosion anticipated
High = significant erosion potential exists
NR = Not Rated

Regulatory Setting

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The law requires regulatory zones (known as Earthquake Fault Zones) to be established around the surface traces of active faults and issuance of appropriate maps for use in planning and controlling new or renewed construction. While the substation would not be used for human occupancy, the maps help to define areas where fault rupture is most likely to occur by grouping faults into categories of active, potentially active, and inactive.

The Seismic Hazards Mapping Act of 1990 directs the California Geologic Survey (CGS) to delineate Seismic Hazard Zones and requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones. It addresses the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes. The Act also addresses tsunamis and seiches. Cities, counties, and state agencies are directed to use seismic hazard zone maps developed by CGS in their land use planning and permitting processes.

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on geologic and soil resources and from geologic hazards. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF GEO-1: Seismic Design

PDF GEO-2: Geotechnical Study

PDF BIO-5: Best Management Practices

PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit

3.6.2 Environmental Impacts and Mitigation Measures

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

LESS THAN SIGNIFICANT IMPACT. The project does not lie within an Alquist-Priolo Earthquake Fault Zone. The closest mapped fault, the Murrieta Springs fault, is not considered an active fault and is not delineated on the most-recent Alquist-Priolo Fault Zoning Map (CGS 2007); however, the fault is considered potentially active.

Under PDF GEO-1, specific requirements for seismic design of the Triton Substation would be per the Institute of Electrical and Electronics Engineers 693 *Recommended Practices for Seismic Design of Substations*. Potential impacts on future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be less than those associated with the initial build-out.

Although the telecommunications routes would cross the Murrieta Springs fault, installation of the lines would be primarily on existing overhead structures and through existing underground conduit and would not result in a change from existing conditions related to the fault.

The applicant completed a geotechnical evaluation of the Triton Substation site (SCE 2008). The evaluation provided design and construction recommendations to reduce potential impacts from geologic hazards. Under PDF GEO-2, results from the evaluation would be incorporated into the final design of the Triton Substation and subtransmission line loop-in. Therefore, potential impacts from the rupture of a known earthquake fault would be less than significant.

ii) Strong seismic ground shaking?

LESS THAN SIGNIFICANT IMPACT. The project is located in a seismically very active area given the proximity and number of potential seismic sources. The closest mapped fault, the Murrieta Springs fault, is not considered an active fault and is not delineated on the most-recent Alquist-Priolo Fault Zoning Map (CGS 2007); however, the fault is considered potentially active. Minor to moderate earthquakes, and potentially a major earthquake (moment magnitude M7 or greater) may be experienced in the project area. Based on the number and proximity of several active faults (Figure 3.6-1), there is the potential for an earthquake to occur during construction or operation of the project.

Under PDF GEO-1, specific requirements for seismic design of the Triton Substation would be per the Institute of Electrical and Electronics Engineers 693 *Recommended Practices for Seismic Design of Substations*. Under PDF GEO-2, results from the evaluation would be incorporated into the final design of the Triton Substation and subtransmission line loop-in. Potential impacts on substation expansion would be less than those associated with the initial build-out. The telecommunications lines would be installed primarily on existing overhead structures and through existing underground conduit and would not result in a change from existing conditions related to ground shaking. Therefore, potential impacts under this criterion would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

LESS THAN SIGNIFICANT IMPACT. The project area has a moderate liquefaction potential (Riverside County 2003). The applicant completed a geotechnical evaluation to identify site-specific geologic conditions and potential geologic hazards (SCE 2008). Groundwater was not encountered in any of the borings drilled to the maximum depth of 51.5 feet below surface grade. Depth of groundwater data obtained from the Spring 2008 Cooperative Well Measuring Program Report, Western Municipal Water District, indicates water depths at 209 feet below surface grade in a well located within 0.25 miles of the Triton Substation site (SCE 2008). Due to the absence of shallow groundwater the project area is not considered to be susceptible to liquefaction.

Under PDF GEO-1, specific requirements for seismic design of the Triton Substation would be per the Institute of Electrical and Electronics Engineers 693 *Recommended Practices for Seismic Design of Substations*. Potential impacts on substation expansion would be less than those associated with the initial build-out. The telecommunications lines would be installed primarily on existing overhead structures and through existing underground conduit and would not result in a change from existing conditions related to the potential for ground failure or liquefaction.

The applicant's geotechnical evaluation report provided design and construction recommendations to reduce potential impacts from geologic hazards or soil conditions (SCE 2008). Under PDF GEO-2, results from the evaluation report will be incorporated into the final design of the Triton Substation and subtransmission line loop-in. Therefore, potential impacts under this criterion would be less than significant.

iv) Landslides?

NO IMPACT. According to the County of Riverside General Plan, the project area, with the exception of the telecommunications lines routes, has a low to locally moderate susceptibility to seismically induced landslides and rock falls (2003).

The applicant's geotechnical evaluation report provided design and construction recommendations to reduce potential impacts from geologic hazards (e.g., landslides) or soil conditions (SCE 2008). The evaluation report indicated that the potential for seismically induced landslides at the Triton Substation site is low. Potential impacts on substation expansion would be less than those associated with the initial build-out. The telecommunications lines would be installed primarily on existing overhead structures and through existing underground conduit and would not result in a change from existing conditions related to soil stability conditions, including the potential for landslides. Areas that would require trenching for underground installation of the telecommunications lines would have a low susceptibility to seismically induced landslide. Therefore, the project would result in no impact under this criterion.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Soil erosion hazards are anticipated to be slight to moderate in the project area except for an area of very fine sandy loam with slopes of up to 8 percent that may be encountered along the subtransmission line loop-in (Table 3.6-3). Soil erosion or loss of topsoil due to vehicle travel over unpaved areas would be minimal during construction (including installation of the telecommunications lines on existing overhead structures and in existing underground conduit). Potential impacts on substation expansion would be less than those associated with the initial build-out. Potential impacts would be managed and monitored through the development and implementation of a construction Storm Water Pollution Prevention Plan (PDF BIO-5 and PDF HYDRO-1).

Trenching for new telecommunications-line conduit would occur along Nicolas Road from the Triton Substation site west to the existing subtransmission line. Though potential impacts due to erosion or the loss of topsoil would be less than significant, excess excavation materials would need to be disposed of properly. Under MM GEO-1 excess excavated materials would be disposed of offsite at an approved facility. Under MM HAZ-2, a contaminated soil/groundwater contingency plan would be developed and implemented. With implementation of MM GEO-1 and MM HAZ-2, potential impacts under this criterion would be reduced to less than significant levels.

> **MM GEO-1: Disposal of Excess Excavated Materials.** Excess excavation materials that are not used to backfill excavated areas shall be transported and disposed of offsite at an approved facility or used as clean fill, as appropriate.

c. Would the project 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. The substation site would be located on land with low relief and slope gradients. The geotechnical evaluation completed by the applicant identified site-specific geologic conditions and potential geologic hazards (SCE 2008). The evaluation report provided design and construction recommendations to reduce potential impacts from geologic hazards or soil conditions. Under PDF GEO-2, the applicant will incorporate results from the evaluation into the design of the project. Potential impacts on substation expansion would be less than those associated with the initial build-out. Installation of the telecommunications lines on existing overhead structures and through existing underground conduit would not result in a change from existing conditions related to soil stability, including the potential for on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Areas that would require trenching for underground installation of the telecommunications lines would not significantly impact soils-stability conditions. Therefore, the project would result in a less than significant impact under this criterion.

d. Would the project 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. The applicant completed a geotechnical evaluation to identify site-specific geologic conditions and potential geologic hazards (SCE 2008). The evaluation report provided design and construction recommendations to reduce potential impacts from geologic hazards or soil conditions. Laboratory testing of representative soil samples collected from the upper 10 feet was performed at the Triton Substation site. Testing results indicate a very low to low expansion index in the upper 5 feet and medium expansion index from 5 to 10 feet. Potential impacts on substation expansion would be less than those associated with the initial build-out. Installation of the telecommunications lines on existing overhead structures and through existing underground conduit would not result in a change from existing conditions related to soil stability conditions, including expansive soil. Areas that would require trenching for underground installation of the telecommunications lines would not significantly impact soils-stability conditions. Under PDF GEO-2, the applicant would incorporate the results of the applicant's geotechnical evaluation report into the design of the project. Therefore, potential impacts under this criterion would be less than significant.

e. Would the project 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 wastewater?

NO IMPACT. The project does not involve the construction of septic tanks or the use of existing septic tanks during construction or operation.

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3.7 Hazards and Hazardous Materials

Table 3.7-1 Hazards And Hazardous Materials Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

3.7.1 Setting

The study area for hazards and hazardous materials includes the proposed site for the new Triton Substation, subtransmission line loop-in, existing Canine Substation, telecommunications route, and existing Auld and Moraga Substations. The Triton Substation would be located on a 10-acre property in a relatively undeveloped portion of Temecula at the southeast corner of Nicolas Road and Calle Medusa. Two vacant mobile homes and a grain bin are located on the property (Galvin 2009). Near the southwest corner of Nicolas Road and Calle Medusa is the parking lot of a church where the Canine Substation is located.

Wooden poles would be removed and new tubular steel poles (TSPs) would be installed to carry the new subtransmission line loop-in and telecommunications line along the south side of Nicolas Road between Calle Medusa and the existing 115 kV Valley-Auld-Pauba subtransmission line. Telecommunications

lines would run above and below ground along Nicolas Road and along the existing Valley-Auld-Pauba subtransmission line from Triton Substation to Auld and Moraga Substations. Trenching to install the telecommunications line underground would be required only along Nicolas Road. All other segments of the telecommunications lines that would be installed underground would be placed in existing conduit through existing vaults and would not require trenching or other ground disturbance.

As part of the project, the temporary transformer at the Auld Substation would be de-energized and left in place as an emergency transformer, and the Canine Substation would be decommissioned. Decommissioning of the Canine Substation would involve de-energizing the transformer and removing it and associated equipment from the site. The Canine Substation's transformer and associated equipment contain approximately 3,850 gallons of oil. Cables, conductors, and other equipment would be removed from two wooden poles at the site, and the poles would be removed. The grounds and gravel, cinderblock wall, chain-link fence, transformer pad and all other equipment and materials related to the Canine Substation would be removed. A storm-drain drop inlet is located within 50 feet of the Canine Substation, and Santa Gertrudis Creek is located across Nicolas Road from the Canine Substation.

Schools

There are no schools within 0.25 miles of the site proposed for the Triton Substation. Nicolas Valley Elementary is 0.4 miles west and would be the closest school to the Triton Substation site. Schools within 0.25 miles of the telecommunications line routes are listed in Table 3.7-2. Additionally, the site would be located approximately 1.5 miles from the southern end of the French Valley Airport.

Table 3.7-2 Schools Within 0.25 miles of the Telecommunication Lines

School	Distance from the Telecommunication Lines
Vail Elementary School	0.06 miles (316 feet)
Temecula Valley High School	0.07 miles (369 feet)
Temecula Valley Independent High School	0.07 miles (369 feet)
Temecula Plan and Learn	0.10 miles (528 feet)
French Valley University, Inc.	0.23 miles (1214 feet)

Hazardous Waste and Substances Sites

Results of searches of the Hazardous Waste and Substances Sites (Cortese) List (see (Government Code section 65962.5) and other databases used for property transfers showed no sites on the Cortese List within 1 mile of the proposed substation location (Rubicon 2008a). The search identified several sites, however, that were not fully described or for which location information was not available in the environmental databases (Rubicon 2008a, DTSC 2009). Shallow soil samples collected from the proposed Triton Substation site did not reveal contamination at levels above background. Oil and grease were detected in four of the 15 samples analyzed, ranging in concentration from 36 to 70 mg/kg (Rubicon 2008b).

Fire Hazards

The California Department of Forestry and Fire Protection identifies and maps areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These areas include Fire Hazard Severity Zones, State Responsibility Areas (SRAs), and Local Responsibility Areas (LRAs) (CAL FIRE 2007a). SRAs and LRAs establish whether the state or the local government, respectively, has the responsibility for wildland fire protection. Both Temecula and Murrieta are LRAs. The City of Temecula has Fire Hazard Severity Zones that range from very high to moderate. Most of the City of Murrieta is not zoned (CAL FIRE 2007b).

Project Design Features

During construction, the applicant would use the substation site for material staging, and recyclable or salvageable materials would be stored in roll-off boxes there. Salvageable items would be processed at a commercial metal-recycling facility in Los Angeles and sold. The applicant would categorize non-recyclable materials for final disposal. Sanitation waste (i.e., human-generated waste) would be recycled according to sanitation waste-management practices. Soil excavated for the project would either be used as fill at the substation or disposed of offsite at an appropriately licensed waste facility.

In addition, the applicant has incorporated the following project design features (PDFs) to prevent accidents and mitigate potential impacts from hazards and hazardous materials. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF BIO-5: Best Management Practices

PDF GEO-1: Seismic Design

PDF HAZ-1: Phase I and Phase II Environmental Site Assessments

PDF HAZ-2: Wood Pole Removal

PDF HAZ-4: Traffic Control

PDF HAZ-5: Fire Prevention and Response Practices

PDF HAZ-6: Vegetation Clearance

PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit

PDF HYDRO-2: Hazardous Materials Near Drainages

PDF HYDRO-3: Material Safety Data Sheets

PDF HYDRO-4: Spill Prevention, Control, and Countermeasure (SPCC) Plan

PDF NOI-1: Construction Equipment Working Order

PDF NOI-2: Construction Equipment Maintenance

PDF TT-1: Traffic Control Services

PDF TT-2: Incorporate Protective Measures

PDF TT-3: Traffic Management

PDF UTIL-2: Recycle Waste Materials

3.7.2 Environmental Impacts and Mitigation Measures

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Hazardous materials would be used during construction and operations. Hazardous materials that would be used during construction include: gasoline, diesel fuel, motor oil, hydraulic fluids and lubricants, paints, solvents, adhesives, and cleaning chemicals. Transformers at the Triton Substation would contain oil for cooling, which would be less than 10,000 gallons. The design of the substation would provide containment and/or diversionary structures for equipment to prevent the discharge of oil. As part of regular maintenance, used

transformer oil from the substation would be pumped into a secondary containment unit. The containment unit would be stored in a sealed area and disposed of by a hazardous waste company.

Hazardous wastes that are likely to be generated include: waste motor oils, used transformers and transformer oil, waste hydraulic fluids, discarded batteries, and waste solvents and adhesives. Another potential hazardous waste would be the nine wooden poles that may be coated with creosote that would be removed, which the applicant would either reuse, return to the manufacturer, recycle, or dispose of in a licensed Class I hazardous waste landfill (PDF HAZ-2).

During construction or decommissioning activities, minor spills and leaks of hazardous materials from vehicles or equipment could occur that could result in release to Santa Gertrudis Creek or other exposure to the public. During operation, leaks or spills could occur if the transformers at the substation were damaged from a seismic event, fire, or other unforeseen incident. However, leaks would likely be contained within the walls of the substation. The substation grading design (slope) would incorporate SPCC Plan requirements to help contain spills.

All hazardous materials used during construction and operation would have to be stored, transported, and disposed of according to federal and state regulations. Except for the volume of transformer oil, relatively small quantities of hazardous materials would be used during both construction and operation of the project. Potential impacts from future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be similar to those associated with the initial build-out.

Under PDF BIO-5, the applicant would prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would discuss where hazardous materials may be stored during construction and the protective measures, notifications, and cleanup requirements for any accidental spills or other releases of hazardous materials that could occur.

Compliance with federal and state regulations regarding hazardous materials/wastes is designed to ensure that the use, transport, storage, and disposal of hazardous materials are done safely and in a manner to avoid spills and potential impacts. In addition, the applicant has committed that:

- Hazardous materials would be used or stored greater than 50 feet from drainages (PDF-HYDRO-2).
- Construction equipment would be in good working order and per manufacturer's recommendations (PDF NOI-1 and NOI-2).
- Material Safety Data Sheets would be made available to all site workers for cases of emergency (PDF HYDRO-3).
- An SPCC plan would be prepared and implemented that addresses the use of hazardous materials during construction and operation (PDF HYDRO-4).

While minor spills and leaks still could occur, the following mitigation measure (MM) would reduce potential impacts to less than significant levels:

MM HAZ-1: Hazardous Materials Management Practices. The applicant shall undertake the following measures:

1. Prepare and implement a hazardous substance management, handling, storage, disposal, and emergency response plan.

2. Train project personnel in appropriate work practices including spill prevention and response measures.
3. Contain all hazardous materials at work sites and properly dispose of all such materials.
    a. Hazardous materials shall be stored on pallets within fenced and secured areas and protected from exposure to weather.
    b. Fuels and lubricants shall be stored only at designated staging areas at least 100 feet from the edge of water bodies.
4. Restrict equipment refueling and lubrication to areas at least 100 feet from stream channels and wetlands.
5. Maintain onsite hazardous material spill kits for small spills.
6. Store sorbent and barrier materials at construction staging areas, including staging areas used during activities for decommissioning of the Canine Substation. Sorbent and barrier materials shall also be used to contain runoff from contaminated areas.
7. During decommissioning of the Canine Substation, protective barriers or other measures will be used to ensure that runoff from an accidental release of oil or other potentially hazardous materials do not enter the storm drainage system.
8. Perform all routine equipment maintenance at a shop or at the staging area and recover and dispose of wastes in an appropriate manner. Remove any vehicles with chronic or continuous leaks from the construction site and repair before returning them to operation.
9. Store shovels and drums at the staging area. If small quantities of soil become contaminated, use shovels to collect the soil and store in drums before proper offsite disposal. Large quantities of contaminated soil may be collected using heavy equipment and stored in drums or other suitable containers prior to disposal. Should contamination occur adjacent to staging areas as a result of runoff, shovels and/or heavy equipment shall be used to collect the contaminated material. Contaminated soil shall be disposed of in accordance with federal and state regulations.

The design of the Triton Substation would prevent the discharge of transformer oil. Due to the relatively low volume and low toxicity of the other hazardous materials to be used during both construction and operation, combined with the implementation of the PDFs and MM HAZ-1, the potential for environmental impacts from hazardous materials incidents during construction or operation of the project would be reduced to less than significant.

Canine Substation and Auld Transformer Bank Decommissioning

After the Triton Substation is operational, the existing Canine Substation would be decommissioned. The Canine Substation's transformer and associated equipment, which contain approximately 3,850 gallons of oil, would be removed from the site. The Canine Substation and all equipment and materials would be removed, and the applicant would clean up and repair the site to match the surrounding area. New asphalt and fill dirt may be required. Canine Substation equipment would be reused or processed for recycling and salvage (PDF UTIL-2).

Prior to salvage, re-use, or disposal, and consistent with the applicant's corporate policies and applicable federal, state, and local requirements, the applicant would drain and test oil-filled equipment, such as transformers and circuit breakers, for levels of polychlorinated biphenyls (PCBs). The ages and contents of the transformers to be removed from the Canine Substation are unknown and therefore should be assumed to contain polychlorinated biphenyls (PCBs). Therefore, they will need to be tested and disposed of according to 40 CFR 761.

Under PDF HYDRO-2, the oil contained in the substation would not be drained on site or transferred between containers. Oil draining and transfer cannot occur within 50 feet of any surface water body, surface drainage, or storm-drain drop inlet (PDF HYDRO-2). Testing would be conducted if there is evidence of an oil leak. PDF HYDRO-1, PDF HYDRO-3, PDF HYDRO-4, and PDF BIO-5 would also be implemented. All hazardous wastes would have to be handled, transported, and disposed of according to appropriate federal and state regulations. The applicant would follow its corporate policies and procedures for hazardous materials management, spill response, and cleanup, consistent with federal, state, and local requirements. If a spill occurs during decommissioning, the applicant would also implement the existing SPCC plan for the Canine Substation.

To ensure that storm drainages and the Santa Gertrudis Creek are not impacted, MM HAZ-1 is also necessary. Protective barriers and other measures will be used to stop runoff from an accidental release of oil or other potentially hazardous materials from entering the storm drainage system. The emergency transformer at the Auld Substation also contains transformer oil, but the transformer would only be disconnected. It would be left in place for emergency use. With the implementation of MM HAZ-1, the potential for environmental impacts during decommissioning of the Canine Substation would be reduced to less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. All hazardous materials used during construction and operation would have to be stored, transported, and disposed of according to federal and state regulations. Transformers at the Triton Substation would contain less than 10,000 gallons of oil for cooling. Relatively small quantities of other hazardous materials would be used during construction and operation. Decommissioning of the Canine Substation, which contains approximately 3,850 gallons of oil, is discussed above under checklist item "a." Potential impacts from future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would be similar to those associated with the initial build-out.

Transformer oil at the Triton Substation could leak or spill during construction or operation. Oil could also leak or spill during decommissioning of the Canine Substation or if a transformer were damaged from a seismic event, fire, or other unforeseen incident. Implementation of PDF GEO-1 would ensure that seismic design guidelines are followed for the substation, which would reduce the potential for upset from seismic events. The substation design would also provide containment and/or diversionary structures for equipment to prevent the discharge of transformer oil.

Implementation of the following PDFs and mitigation measure would reduce potential impacts from upset or accidental spills of hazardous materials to less than significant levels:

PDF BIO-5: Best Management Practices

PDF GEO-1: Seismic Design

PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit

PDF HYDRO-2: Hazardous Materials Near Drainages

PDF HYDRO-3: Material Safety Data Sheets

PDF HYDRO-4: SPCC Plan

PDF NOI-1: Construction Equipment Working Order

PDF NOI-2: Construction Equipment Maintenance

MM HAZ-1: Hazardous Materials Management Practices

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

LESS THAN SIGNIFICANT IMPACT. The telecommunications lines would be installed within 0.25 miles of several schools (Table 3.7-2). The school nearest to the new Triton Substation would be 0.4 miles to the west. Relatively small quantities of hazardous materials, substances, or wastes would be handled during construction and operation of the telecommunications lines. Vehicles and equipment are likely to emit air contaminants during construction of the project; however, construction or operation of the project would not result in the release of extremely hazardous substances or hazardous air emissions in quantities that may reasonably be anticipated to pose a health or safety hazard to persons who would attend or would be employed at a nearby school.

Implementation of the following PDFs would also help ensure that potential impacts on schools from hazardous materials, substances, wastes, or emissions would be less than significant:

PDF BIO-5: Best Management Practices

PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit

PDF HYDRO-2: Hazardous Materials Near Drainages

PDF HYDRO-3: Material Safety Data Sheets

PDF HYDRO-4: SPCC Plan

PDF NOI-1: Construction Equipment Working Order

PDF NOI-2: Construction Equipment Maintenance

d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. None of the project components, including the Triton Substation, subtransmission loop-in lines, telecommunications lines, or existing Canine Substation, would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. A review of environmental databases indicates there are no hazardous material/wastes sites that could impact the soil or groundwater beneath the Triton Substation property and no known surface or subsurface contamination within 1 mile of it.

Nonetheless, excavation during construction of the project could unearth contaminated soil and groundwater. Therefore, it is necessary to evaluate the potential to encounter contamination. Since some of the sites near the project area were not fully described in the environmental databases, and environmental databases do not provide sufficient information to fully rule out the possibility of encountering contaminated soil or groundwater during construction of the project, there is still the potential for contaminated soil or groundwater to be encountered.

Decommissioning of the Canine Substation would involve the removal of transformers, conductors, cables, and structures. Removal of the pad may reveal soil contaminated with transformer oil. The applicant has stated that they would conduct appropriate testing for PCBs. At this time, it is not known whether any of the transformers at this substation contain PCBs. Therefore, it is necessary to assume that the transformers contain PCBs; and they would have to be tested and disposed of according to the requirements in 40 CFR 761. In addition, the sampling and potential remediation of residual contamination would have to comply with 40 CFR 761.

Due to the potential presence of contamination, a potentially significant hazard to the public or the environment could be created during excavation and decommissioning activities associated with the project. With the implementation of the following mitigation measure, potential impacts would be avoided or reduced to less than significant levels:

> **MM HAZ-2: Contaminated Soil/Groundwater Contingency Plan.** The applicant shall develop and implement a plan to address the unanticipated unearthing or exposure of buried hazardous materials or contamination or contaminated groundwater. The plan shall detail the steps that the applicant or its contractor shall take to prevent the spread of contamination, the sampling that would be necessary if contamination is discovered, and the remedial action that would be taken.

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?

LESS THAN SIGNIFICANT IMPACT. The Triton Substation property would be located approximately 1.5 miles from the southern end of the French Valley Airport and within an area covered under the Riverside County Airport Land Use Compatibility Plan. The substation and its associated structures would be approximately 30 feet tall at its highest point. The subtransmission line and TSPs would be approximately 75 to 85 feet tall. The telecommunications lines would be part of the underbuild on new and existing subtransmission lines.

The Riverside County Airport Land Use Compatibility Plan has divided the area surrounding the airport into zones. The substation site would be located within Zone E, and the new subtransmission line loop-in would be in Zones D and E. Except for some locations where they would be placed underground, the telecommunications lines would be underbuilt on existing subtransmission lines within Zones B1, C, D, and E, and on the new subtransmission line loop-in within Zones D and E.

Based on Federal Aviation Administration (FAA) criteria, proposed objects that would exceed 35, 70, 70, and 100 feet in Zones B1, C, D, and E, respectively, potentially represent airspace obstructions issues. A Riverside County Airport Land Use Commission (ALUC) review is required for projects with any objects exceeding these heights. Notification to and review by the FAA is also required (Riverside County 2007).

The applicant would be required to consult with the French Valley Airport, the ALUC, and the FAA for an airspace height review and approval of the new subtransmission line loop-in and TSPs in Zone D to ensure that the final design, engineering, and construction of the project would be consistent with the compatibility zone height restrictions and to ensure that they would not result in a safety hazard for people residing or working in the project area (Riverside County 2007).

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 are within 2 miles of the project area; therefore, the project would not result in a safety hazard from aircraft operations for people residing or working in the project area.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT IMPACT. Neither the Cities of Temecula or Murrieta or the County of Riverside have emergency evacuation routes for the project area. Construction at the substation would occur in a relatively undeveloped area and all materials would be staged at the substation site. A traffic control service would be used during construction activities.

Once construction of the project is complete, operation of the project would not make roads inaccessible. Therefore, under normal operation, the project would not interfere with any routes that emergency vehicles could use, emergency evacuation routes, or emergency operation plans.

Under PDF TT-1, PDF TT-2, and PDF TT-3, the applicant would use traffic control services, incorporate traffic protective measures, and follow guidelines of the Work Area Traffic Control Handbook for safe traffic management during construction. Under PDF HAZ-4 the applicant would consult with the California Department of Transportation, as applicable, before commencing construction activities that may affect traffic. and implementing a traffic control plan to minimize potential impacts on local streets.

With the implementation of these PDFs, potential impacts on emergency response or evacuation would be minimized. Therefore, this impact would be either avoided or reduced to less than significant levels.

h. Would the project 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. The Triton Substation site is in a high Fire Hazard Severity Zone in a Local Responsibility Area (LRA) in Temecula. The telecommunications lines would cross LRA land unzoned and zoned as moderate, high, and very high Fire Hazard Severity Zones (CAL FIRE, 2007b). Therefore, both project construction and operation could increase the risk of wildland fires, particularly in high and very high Fire Hazard Severity Zones. Construction and maintenance activities that could increase fire risk include refueling, vehicle and equipment use, welding, vegetation clearing, and cigarette smoking. During operation, fires could be started if objects contacted the subtransmission lines or a live-phase conductor fell to the ground.

The applicant has incorporated the fire prevention measures outlined in PDF HAZ-5 into the project and would clear vegetation and flammable materials from all storage areas, stationary engine sites, and welding areas. The applicant also committed to PDF HAZ-6 to maintain vegetation clearance during the operation of Triton Substation. Incorporation of these measures would reduce the risk of potential fires resulting from the project to less than significant levels.

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3.8 Hydrology and Water Quality

Table 3.8-1 Hydrology and Water Quality Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of 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 alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f.	Otherwise substantially degrade water quality?	☐	☒	☐	☐
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j.	Expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

3.8.1 Setting

The project area would be located within the Santa Margarita River Watershed of the San Diego Basin under the jurisdiction of the San Diego Regional Water Quality Control Board (SDRWQCB). Major water bodies of the watershed include the Santa Margarita River, Temecula Creek, Murrieta Creek, Santa Margarita Lagoon, Vail Lake, Lake Skinner Reservoir, and Diamond Valley Lake Reservoir (SDRWQCB 2007). Water bodies listed as impaired within the watershed include the Upper Santa Margarita River,

Murrieta Creek, and Sandia Creek. These water bodies are listed as impaired mainly due to nutrient content (U.S. EPA 2009).

The San Diego Aqueduct, part of the San Diego County Water Authority System, is oriented north-south in the vicinity of the project. Santa Gertrudis Creek runs parallel to and just north of Nicolas Road in the vicinity of the proposed substation and the route for the subtransmission line loop-in. Reaches of the Santa Margarita River, Temecula Creek, Murrieta Creek, and Pechanga Creek also flow through the City of Temecula.

The project is located within the Temecula Valley Groundwater Basin, which underlies several valleys including the Murrieta and Temecula Valleys in southwestern Riverside County and a portion of northern San Diego County. Water-bearing formations of the basin consist of Quaternary alluvium, from erosion of adjacent granitic outcrops and the San Jacinto Mountains, and Holocene alluvial deposits. Groundwater recharge is from precipitation and surface water infiltration from area creeks and the Temecula River. Groundwater in the Temecula Valley Groundwater Basin is largely suitable for domestic and irrigation uses, however, groundwater near Murrieta and Murrieta Hot Springs is not suitable for domestic use due to high nitrate or fluoride contents (DWR 2004).

While historic high groundwater levels in the project area have been found at 20 feet below ground surface (bgs), a site-specific subsurface geotechnical investigation did not encounter groundwater at the proposed substation site to a depth of 51.5 feet bgs. The depth to groundwater in a municipal well (Rancho California Water District) located about ¼ mile south of the substation site was 209 feet bgs (SCE 2008). Construction of the tubular steel poles (TSPs) would require excavation down to 30 feet bgs.

Based on Federal Emergency Management Act (FEMA) maps, 100-year and 500-year floodplains have been identified within the project area (City of Temecula 2003). One or more of the new TSPs for the subtransmission line loop-in would lie within the 100-year floodplain of Santa Gertrudis Creek (Figures 3.8-1 and 3.8-2). In addition, there are three dams, at Vail Lake, Lake Skinner Reservoir, and Diamond Valley Lake Reservoir (County of Riverside 2003). There are no surface hydrologic features located within the Triton Substation site. The subtransmission line loop-in would connect to the existing subtransmission line in the vicinity of the San Diego Aqueduct, which runs north and south and is located approximately 1 mile from the Triton Substation site.

The California Water Code (Section 13260) requires that any entity discharging waste or proposing to discharge waste (other than into a community sewer system) that could affect the quality of State waters submit a report to the applicable Regional Water Quality Control Board (RWQCB). Additionally, under the National Pollutant Discharge Elimination System (NPDES), RWQCBs require a Construction Activities Storm Water General Permit (Order 99-08-DWQ) for storm water discharges associated with any construction activity including clearing, grading, excavation reconstruction, and dredge and fill activities that results in the disturbance of at least 1 acre of total land area. Since the project would disturb more than 1 acre, the permit and a Stormwater Pollution Prevention Plan (SWPPP) would be required.

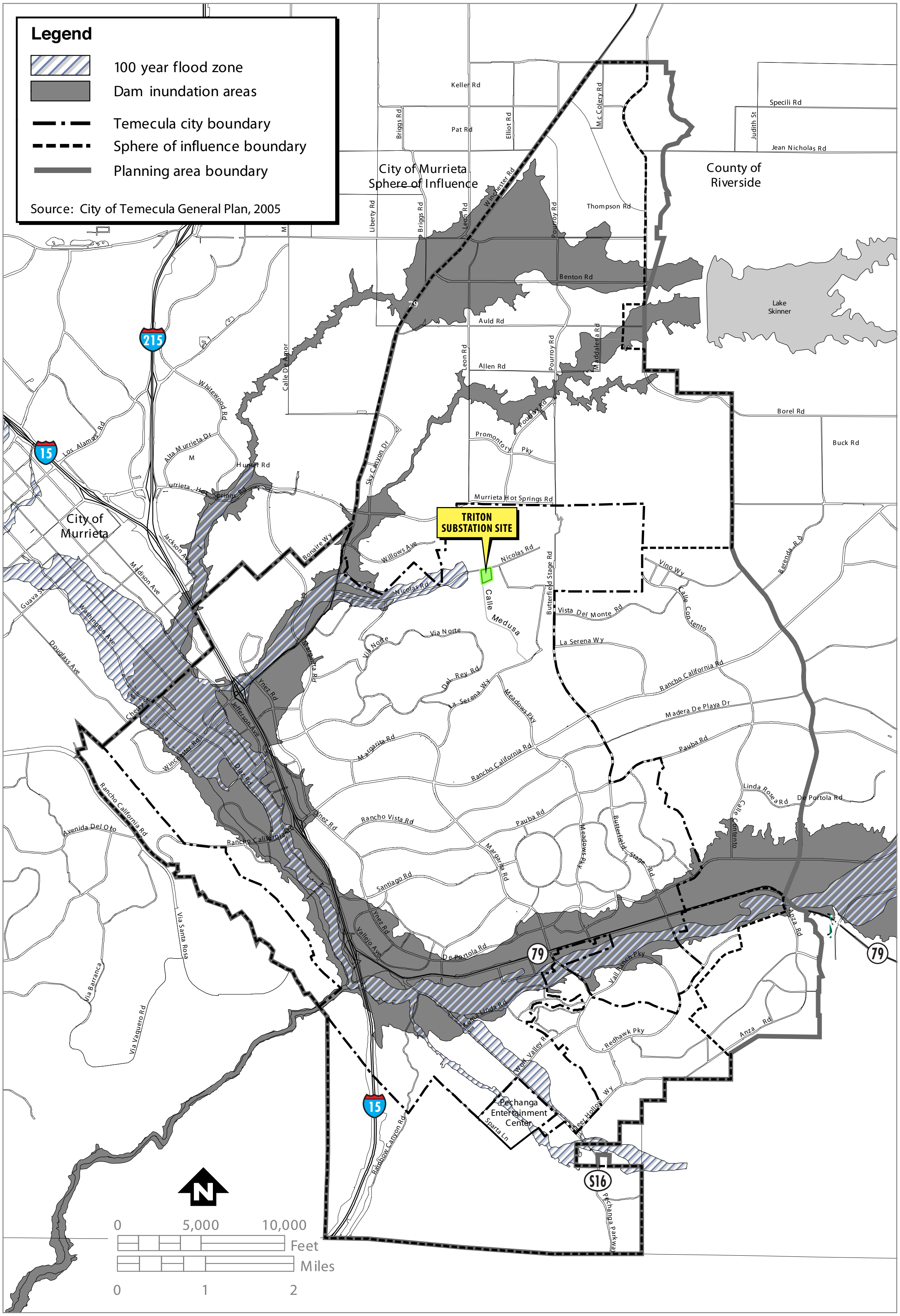

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Figure 3.8-1

Flood Hazard and Dam Inundation Areas

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Figure 3.8-2 Santa Gertrudis Creek (Northeast corner of Nicolas Road and Calle Medusa, directly across from the Triton Substation site)

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on hydrology and water quality. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit

PDF HYDRO-2: Hazardous Materials Near Drainages

PDF HYDRO-3: Material Safety Data Sheets

PDF HYDRO-4: Spill Prevention, Control, and Countermeasure (SPCC) Plan

PDF HYDRO-6: Jurisdictional Areas of Streams and Drainage

PDF HYDRO-7: Facilitate Existing Drainage

PDF HYDRO-8: Drainage Control Features

PDF HYDRO-9: Substation Stormwater Drainage

PDF HYDRO-10: Existing Stormwater Drainage Systems

PDF AES-6: Substation Landscaping

PDF BIO-5: Best Management Practices

PDF GEO-2: Geotechnical Study

PDF HAZ-2: Wood Pole Removal

PDF UTIL-1: Notice of Termination

PDF UTIL-2: Recycle Waste Materials

3.8.2 Environmental Impacts and Mitigation Measures

a. Would the project violate any water quality standards or waste discharge requirements?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The applicant would make required localized improvements in conjunction with site-specific developments to transport runoff to the established citywide drainage system. Construction and operation crews would use Best Management Practices (BMPs) in accordance with the SWPPP (PDF BIO-5 and PDF HYDRO-1).

The SWPPP would identify potential pollutant sources that may affect the quality of discharges associated with construction activity and incorporate BMPs to address erosion and sediment control, wind erosion control, source controls, and waste management to prevent the offsite migration of contaminant-laden stormwater. The SWPPP would comply with the requirements of the RWQCB to ensure that development of the project would not result in a violation of water quality standards. Upon reaching stabilization of the project area per the Construction Activities Storm Water General Permit, the applicant would submit a Notice of Termination (PDF UTIL-1).

During construction, activities such as removal of the wood poles and installation of new TSPs, installation of the subtransmission line loop-in cables and telecommunications lines, installation of new landscaping, soil compaction, decommissioning of the Canine Substation, and excavation could result in erosion and sedimentation. The existing wood poles may have dirt and oils that could adversely impact water resources, but the applicant would properly dispose of the poles in a licensed landfill (PDF HAZ-2). Under PDF UTIL-2, materials generated by removal of the existing lines and poles would be recycled or properly disposed of, and soil from drilling, site grading, or excavation would be screened and separated for use as backfill material at the site of origin to the maximum extent possible.

If excavated soil could not be used as backfill material, excess soil could enter Santa Gertrudis Creek through runoff, which is a potentially significant impact. With implementation of mitigation measure (MM) MM GEO-1 (Disposal of Excess Excavated Materials), excess excavation materials that are not used to backfill excavated areas would be transported and disposed of offsite at an approved facility, and this would be reduced to less than significant.

The applicant would store hazardous materials at a minimum of 50 feet from drainage areas (PDF HYDRO-2). The applicant would also prepare and implement an SPCC Plan that includes the hazardous/non-hazardous materials used during operation of the project (PDF HYDRO-4). During construction or decommissioning activities, spills and leaks of hazardous materials from vehicles or equipment could occur which could result in release to Santa Gertrudis Creek. During operation, leaks or spills could occur if the transformers at the substation were damaged from a seismic event, fire, or other unforeseen incident. However, leaks would likely be contained within the walls of the substation. The substation grading design (slope) would incorporate SPCC Plan requirements to help contain spills. In addition, during construction of the project and decommissioning of the Canine Substation, no oil or hazardous materials storage, staging, use, or transfer shall occur within 50 feet of any surface water body, surface drainage, or storm-drain drop inlet (PDF HYDRO-2).

While spills and leaks still could occur, implementation of MM HAZ-1 (Hazardous Materials Management Practices) would reduce potential impacts to less than significant. Therefore, with implementation of MM GEO-1 and MM HAZ-1, the project would result in a less than significant impact under this criterion.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of 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. The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. No habitable structures would be constructed. Drought tolerant landscaping would be installed around the perimeter of the Triton Substation (PDF AES-6). The subtransmission line loop-in and telecommunication lines would not require water during operation and would not impact groundwater supplies or recharge. The increase in impervious surfaces associated with the development of the Triton Substation would be minimal and not substantially affect regional absorption and infiltration rates. The future expansion from a 56 MVA substation to a 112 MVA substation would not increase impervious surfaces and would have no additional effect on groundwater supplies or recharge.

A permanent on-site restroom facility would be connected to municipal water and sewer lines and is not anticipated to impact groundwater. Though further mitigation is not required, a permit would be required for the construction of a permanent restroom. Therefore, the project would result in a less than significant impact under this criterion.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

LESS THAN SIGNIFICANT IMPACT. Initial build-out of the project as a 56 MVA substation and future expansion to a 112 MVA substation would not substantially alter the existing drainage pattern of the site or area nor would it result in substantial erosion or siltation on- or off-site. The project would be designed and engineered to facilitate existing drainage patterns to avoid or minimize any potential impacts related to erosion and siltation (PDF HYDRO-7). Triton Substation facilities would also be engineered to use existing stormwater drainage systems, including Santa Gertrudis Creek or County of Riverside stormwater collection facilities, and others as applicable (PDF HYDRO-10). Under PDF HYDRO-6, no infrastructure associated with the project would be situated within jurisdictional areas of streams and drainages (e.g., channels and banks).

The applicant would design stormwater drainage inside the Triton Substation wall to control sediment and minimize erosion. Internal runoff would be released from the substation by means of surface drainage structures. The City of Temecula would approve final design of site drainage, which would be subject to the conditions of a grading permit (PDF HYDRO-9). In addition, implementation of a SWPPP that complies with the requirements of the RWQCB would ensure that construction and operation of the project would not result in substantial erosion or siltation on- or off-site (PDF BIO-5, PDF HYDRO-1, and PDF HYDRO-8). Therefore, the project would result in a less than significant impact under this criterion.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

LESS THAN SIGNIFICANT IMPACT. Initial build-out of the project as a 56 MVA substation and future expansion to a 112 MVA substation would not substantially alter the existing drainage pattern of the site or area nor result in substantial erosion or siltation on- or off-site. No surface hydrologic features are located within the Triton Substation site. Under PDF HYDRO-6, no infrastructure associated with the project would be situated within jurisdictional areas of streams and drainages (i.e., channels and banks).

During construction, grading and excavation activities may result in minor modifications to drainage patterns in the project area and would create impervious surfaces, thereby increasing surface runoff. However, the Triton Substation and subtransmission line loop-in would be designed and engineered to use existing drainage patterns (PDF HYDRO-7). Triton Substation facilities would also be engineered to use existing stormwater drainage systems (PDF HYDRO-10).

In addition, implementation of the SWPPP during construction would minimize temporary impacts from stormwater runoff and alleviate the potential for flooding on- or off-site (PDF BIO-5, PDF HYDRO-1, and PDF HYDRO-8). Drainage control features would be installed where appropriate as well as other stormwater protection measures included as part of the SWPPP. These drainage features would control runoff during operation. Therefore, the project would result in a less than significant impact under this criterion.

e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

LESS THAN SIGNIFICANT IMPACT. Localized improvements would be implemented in conjunction with site-specific developments to transport runoff to the established citywide drainage system. Substation facilities would be engineered to use existing stormwater drainage systems, including but not limited to Santa Gertrudis Creek or County of Riverside stormwater collection facilities, as applicable. Stormwater discharge to existing drainages would meet required volumes and quality as prescribed by appropriate state and local authorities (PDF HYDRO-10).

Construction of the project would increase surface runoff through the introduction of permanent impervious surfaces in the project area. Implementation of the SWPPP during construction would minimize temporary impacts from stormwater runoff and alleviate the potential for flooding on- or off-site (PDF BIO-5, PDF HYDRO-1, and PDF HYDRO-8). Drainage control features would be installed where appropriate as well as other stormwater protection measures included as part of the SWPPP.

The SWPPP would also identify potential pollutant sources that may affect the quality of discharges associated with construction activity and incorporate BMPs to address erosion and sediment control, wind erosion control, source controls, and waste management to effectively prevent the offsite migration of contaminant-laden stormwater. PDF HAZ-2, PDF HYDRO-2, PDF HYDRO-3, PDF HYDRO-4, and PDF UTIL-2 would be included in the design of the project to minimize potential impacts from polluted runoff.

Therefore, initial build-out of the project as a 56 MVA substation and future expansion to a 112 MVA substation would result in a less than significant impact under this criterion.

f. Would the project otherwise substantially degrade water quality?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Surface water and groundwater quality could be affected by construction and operation activities. The applicant would develop and implement a SWPPP (PDF BIO-5 and PDF HYDRO-1) that would identify potential pollutant sources that may affect the quality of discharges associated with construction activity. PDF HAZ-2, PDF HYDRO-2, PDF HYDRO-3, PDF HYDRO-4, and PDF UTIL-2 would be included in the design of the project to minimize potential impacts on water quality.

Groundwater is not expected to be encountered during installation of the TSPs for the subtransmission line loop-in, which would require excavation down to 30 feet bgs. During construction or decommissioning activities, minor spills and leaks of hazardous materials from vehicles or equipment could occur which could result in release to Santa Gertrudis Creek. During operation, leaks or spills could occur if the transformers at the substation were damaged from a seismic event, fire, or other unforeseen incident. However, leaks would likely be contained within the walls of the substation. The substation grading design (slope) would incorporate SPCC Plan requirements to help contain spills. While minor spills and leaks still could occur, implementation of MM HAZ-1 (Hazardous Materials Management Practices) would reduce potential impacts to less than significant.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. Housing would not be constructed as part of the project. Therefore, construction and operation of the project would result in no impact under this criterion.

h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

LESS THAN SIGNIFICANT IMPACT. The subtransmission line loop-in route would cross a flood-hazard area designated under the FEMA that is associated with Santa Gertrudis Creek (Figure 3.8-1). The subtransmission line loop-in and other project facilities, however, would not be located in a watercourse. Although the project route would span waterways, poles would be located on nearby land areas and engineered to withstand stresses associated with their proximity to the waterways (PDF HYDRO-6). Drainage control features would be installed where appropriate as well as other stormwater protection measures included as part of the SWPPP (PDF HYDRO-1 and PDF HYDRO-8). The project would comply with local floodplain management practices. Under PDF HYDRO-7, the applicant would design and engineer the substation and poles to facilitate existing drainage patterns. Therefore, construction and operation of the project would result in a less than significant impact under this criterion.

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

LESS THAN SIGNIFICANT IMPACT. Initial build-out of the project as a 56 MVA substation and future expansion to a 112 MVA substation is not anticipated to expose people or structures to a flood including floods resulting from the failure of a levee or dam. The Triton Substation would not be located within a flood zone or dam hazard zone (Figure 3.8-1). Though some project components would span waterways, such as creeks and streams that are within the flood zone, project components, including TSPs, would be located on land and engineered to withstand stresses associated with their proximity to the waterways (PDF HYDRO-6). In addition, drainage control features would be installed where appropriate as well as other stormwater protection measures included in the SWPPP (PDF HYDRO-1 and PDF HYDRO-8).

Therefore, construction and operation of the project would result in a less than significant impact under this criterion.

j. Would the project expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow?

LESS THAN SIGNIFICANT IMPACT. Lake Skinner Reservoir, the nearest large body of water, is about 3 to 4 miles northeast of the project area. The Pacific Ocean is about 30 miles west of the project area. There is a very low possibility that construction and operation of the project would result in significant risk of exposure of people and structures to a seiche, tsunami, or mudflow. The project would be located on relatively flat ground. Nonetheless, there are some steep slopes along the western and southern boundaries of the Triton Substation site.

Results and recommendations from the geotechnical evaluation (SCE 2008) would be incorporated into the final design of project (PDF GEO-2). Therefore, potential impacts from seiche, tsunami, or mudflow would be less than significant.

References

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3.9 Land Use and Planning

Table 3.9-1 Land Use and Planning Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☒	☐	☐

3.9.1 Setting

The Cities of Temecula and Murrieta are located at the southwestern end of the Inland Empire region in Southern California. This area is characterized by a history of farming and ranching, and residential growth has accelerated in the last decade (Riverside County 2008).

The Triton Substation would be located on a 10-acre property owned by the applicant that is southeast of the intersection of Nicolas Road and Calle Medusa in the City of Temecula. The site is bounded by Calle Medusa and a church campus to the west and Nicolas Road and relatively undeveloped rural land to the north. Lightly developed, rural land borders the site to the east, and a low-density residential area borders the site to the south. Some structures, including a metal grain storage bin, two modern manufactured trailers, and a wood shed currently exist on the site, but otherwise the parcel is largely unimproved. The site is relatively flat but located near the foot of gently sloping terrain with a few trees and sparse vegetation.

The subtransmission line loop-in would be located to the west of the substation site. It would extend approximately 1,300 feet from the substation site along Nicolas Road to the existing 115 kV Valley-Auld-Pauba subtransmission line. The distribution duct banks would be located on the substation property, to the north and west of the substation facility.

The two telecommunications lines would also extend from Triton Substation along Nicolas Road to the existing 115 kV Valley-Auld-Pauba subtransmission line. From there, one line would extend north along the Valley-Auld-Pauba subtransmission line to Auld Substation. The telecommunications line would pass approximately 1,000 feet east of the French Valley Airport. The second telecommunications line would extend south along the Auld-Moraga No. 2 subtransmission line to Moraga Substation. The telecommunications lines would run aboveground in some areas and belowground in others en route from Triton Substation to Auld and Moraga Substations.

The City of Temecula General Plan land use designations for the main project area include Very Low Residential and Low Medium residential. The zoning designations that apply to the main project area include Very Low Density Residential and Low Medium Density Residential. The main project area is located within 10 miles of four residential development specific plan areas: Roripaugh Ranch (construction began but has since stalled indefinitely), located in the City of Temecula; and Rancho Bella

Vista, Johnson Ranch, and Winchester Properties (Silver Hawk), located in unincorporated Riverside County (Johnson 2009).

Land use designations for the segments of the telecommunications lines that would pass through the City of Temecula include Very Low Density Residential, Low Density Residential, Low Medium Density Residential, Medium Density Residential, High Density Residential, Open Space, Public Institutional, Planned Development Overlay, and Specific Plan. Land use designations for the segments of the telecommunications lines that would pass through unincorporated Riverside County include Conservation, Business Park, Light Industrial, Public Facility, and Commercial Retail. Land use designations for the segments of the telecommunications lines that would pass through the City of Murrieta include Business Park and Rural Residential.

Zoning designations for the portion of the telecommunications line that would pass through the City of Temecula include Very Low Density Residential, Low Medium Density Residential, High Density Residential, Parks and Recreation District, and Public Institutional. Zoning designations for the portion of the telecommunications line that would pass through unincorporated Riverside County include Winchester Properties (Silver Hawk) specific plan, residential agricultural, light agricultural, industrial park, and scenic highway commercial. Zoning designations for the portion of the telecommunications line that would pass through the City of Murrieta include Business Park.

Nicolas Valley Rural Preservation Area

The Triton Substation site is located within the Nicolas Valley Rural Preservation Area (City of Temecula 2005). Policies addressing Rural Preservation Areas in the City include those to provide a buffer area between rural areas and commercial, industrial, and higher-density residential development areas; limit the number and size of additional structures on large lots to preserve the character of low-density areas; and discourage the extension of urban infrastructure except in cases where required to protect public health, safety, and welfare. Specific policies for the Nicolas Valley Rural Preservation Area include those to promote the continued rural development of large lot, very low-density residential units.

In June 2008, the Temecula City Council committed funds to the Nicolas Valley Rural Preservation Project. As part of this project, the city is in the process of preparing special studies in support of an Environmental Impact Report (EIR) for a proposed Community Plan, Design Guidelines, and the associated general plan land use amendment and zoning change. The City initially expressed concern that construction of a substation at the proposed location would not comply with the City's goals and policies of the draft Design Guidelines; however, the guidelines have not been finalized or adopted (City of Temecula 2008a, City of Temecula 2008b, City of Temecula 2009, Ubnoske 2009).

The City has held several public meetings with residents in the area of Nicolas Valley as part of the "visioning" process for the community plan and design guidelines. Surveys of attendees at these meetings indicate that the residents want to develop design guidelines and a plan for the area that would protect the rural nature of Nicolas Valley. The City anticipated release of the draft EIR for review in September 2009, but the process is on hold while City staff confirms the community's desired zoning outcome for the area (Johnson 2009).

Riverside County Airport Land Use Compatibility Plan

The French Valley Airport, a general aviation airport owned and operated by the County of Riverside, is located 1.5 miles northwest of the Triton Substation site and approximately 1,000 feet west of the northern extent of the telecommunications route (City of Temecula 2005). The Riverside County Airport Land Use Compatibility Plan (ALUCP) establishes policies applicable to land throughout Riverside County, including the French Valley Airport (Riverside County 2004).

The Riverside County ALUCP has divided the area surrounding the airport into zones. The substation site would be located within Zone E, and the new subtransmission line loop-in would be in Zones D and E. Except for some locations where they would be placed underground, the telecommunications lines would be underbuilt on existing subtransmission lines within Zones B1, C, D, and E, and on the new subtransmission line loop-in within Zones D and E.

Based on the criteria in the ALUCP, proposed objects that would exceed 35, 70, 70, and 100 feet in Zones B1, C, D, and E, respectively, potentially represent airspace obstructions issues. A Riverside County Airport Land Use Commission (ALUC) review is required for new projects with any objects exceeding these heights. Notification to and review by the FAA is also required (Riverside County 2007).

The applicant is required to consult with the ALUC and the FAA for an airspace height review and approval of the new subtransmission line loop-in and TSPs in Zone D to ensure that the final design, engineering, and construction of the project would be consistent with the compatibility zone height restrictions (Riverside County 2007). The applicant has initiated consultation with the ALUC (Guerin 2009).

Western Riverside County Multiple Species Habitat Conservation Plan

The project is located within the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in western Riverside County, with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region (Riverside County TLMA 2003). Riverside County and the Cities of Temecula and Murrieta are all parties to the implementing agreement for the MSHCP, as are the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

The MSHCP requires that project sites be evaluated for a number of factors to assess how they meet the criteria identified in the MSHCP. In addition to following plan requirements related to species evaluation and protection, as a public utility provider that operates facilities and owns land subject to the MSHCP, the applicant has the option to participate in the plan as a Participating Special Entity (PSE). Because the applicant does not anticipate needing to apply for a species take authorization pursuant to the plan for the project, however, the applicant has opted not to participate in the MSHCP as a PSE at this time.

If it is determined that sensitive biological resources are present that may be affected by the project, focused surveys may be required. Focused surveys must follow MSHCP protocol guidelines, which typically limit surveys to certain seasonal time periods and require a set number of surveys to be conducted. The applicant has collected sensitive species information relevant to the MSHCP and has developed project design features (see below) intended to protect sensitive species and habitat.

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on land uses. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF LU-1: Public Notification and Complaint Procedures

PDF AES-1: Substation Setback

PDF AES-2: Low-Profile Substation Equipment

PDF AES-3: Substation Lighting Control

PDF AES-4: Non-Reflective Finish

PDF AES-5: Substation Block Wall

PDF AES-6: Substation Landscaping

PDF TT-4: Repair Damaged Streets

3.9.2 Environmental Impacts and Mitigation Measures

a. Would the project physically divide an established community?

LESS THAN SIGNIFICANT IMPACT. Installation of the subtransmission line loop-in along Nicolas Road would be in place of existing distribution lines and would not result in the physical division of an established community. The telecommunications lines would be underbuilt on subtransmission lines and would not result in the physical division of an established community. Removal of the Canine Substation would improve the character of the surrounding community and would not result in the physical division of an established community.

The Triton Substation would be located on a relatively undeveloped site within the Nicolas Valley, a rural residential area in the City of Temecula. Construction of the substation would not displace existing, active residential development and would not directly result in the physical division of an established community.

The appearance, character, and use of a typical electrical substation would generally be more consistent with a light industrial area, or one zoned for public services/utilities, than a residential area; such an incongruity could result in an indirect impact on the character of the surrounding community. The Triton Substation, however, has a relatively low profile (PDF AES-2), would be screened by a wall and landscaping (PDF AES-5 and PDF AES-6), and would be set back from streets (PDF AES-1) in a way that would make its appearance more consistent with a rural residential area. In addition, PDF AES-3, PDF AES-4, and PDF TT-4 would be implemented to minimize potential impacts on communities and residences in the vicinity of the Triton Substation site. Therefore, any impact on the surrounding community that could otherwise contribute to a physical division would be less than significant.

b. Would the project 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?

LESS THAN SIGNIFICANT IMPACT. The project would be consistent with general plan policies and zoning designations for the City of Murrieta, and Riverside County, including the Riverside County Airport Land Use Compatibility Plan.

The land use designation for the substation location is defined in both the City of Temecula General Plan and the City of Temecula Municipal Code as Very Low Density Residential (VL). The definition of VL in the general plan is single-family detached homes on large lots with a rural ranchette character of development. Under the City of Temecula Municipal Code, Title 17 Zoning, Chapter 17.06 Residential Districts, Table 17.06.030 Residential Districts, public utility facilities in the Very Low residential zoning districts are subject to the approval of a conditional use permit.

The substation would not be a single-family detached home as defined in the City of Temecula General Plan land use designation for the site, and the applicant would not seek a conditional use permit from the City of Temecula. As a result, the siting of a substation at this location would not be consistent with the general plan land use and zoning designations of the City of Temecula. The project is exempt from discretionary permits issued by local jurisdictions, however, under California Public Utilities Commission General Order Number 131-D Section XIVB. This general order clarifies 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 California Public Utilities Commission's jurisdiction.

The Triton Substation site would be located in an area that the City of Temecula has designated as a Rural Preservation Area. The City discourages the extension of urban infrastructure into Rural Preservation Areas but does not prohibit substations or electrical subtransmission lines there. The City initially expressed concern that construction of a substation at the proposed location would not comply with the City's goals and policies of the draft Design Guidelines; however, the guidelines have not been finalized or adopted.

In addition, the substation would have a relatively low profile (PDF AES-2), would be screened by a wall and landscaping (PDF AES-5 and PDF AES-6), and would be set back from streets (PDF AES-1) in a way that would make its appearance more consistent with a rural residential area. Public notification and complaint procedures and a toll-free number would also be established for addressing concerns regarding construction activities, including but not limited to dust and noise (PDF LU-1). Further, the substation would serve a larger region beyond the immediate Nicolas Valley area, and any growth associated with the construction of the substation would not necessarily take place within the Nicolas Valley area.

The telecommunications lines would be constructed within existing utility corridors and would be consistent with current land use policies. The project would also be consistent with French Valley Airport and ALUCP policies. The applicant has initiated consultation with Riverside County ALUC staff and would comply with conditions of the ALUCP. Therefore, project impacts would be less than significant under this criterion.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project is located within the area covered by the Western Riverside County MSHCP. As a public utility provider operating within the Western Riverside County MSHCP, the applicant has the option to become a Participating Special Entity (PSE) and may request take authorization for its activities pursuant to the Western Riverside County MSHCP. The applicant does not anticipate needing to apply for a take permit during the construction or operation of the project as they anticipate avoiding impacts on sensitive and protected resources. If pre-construction surveys indicate the presence of a special status species that the applicant cannot avoid during construction through implementation of PDFs or by adjusting the project footprint, then the project could be inconsistent with the Western Riverside County MSHCP unless the applicant opted to become a PSE.

Through implementation of MM BIO-3 and MM BIO-4 this potential impact would be reduced to less than significant because the applicant would become a PSE and seek take authorization through the Western Riverside County MSHCP if sensitive species cannot be avoided. Although the applicant does not plan to become a PSE under the Western Riverside County MSHCP unless necessary, they have completed initial surveys and analysis for sensitive and protected species and habitats which are consistent with Western Riverside County MSHCP. Surveys on portions of the project for plants and

wildlife were completed according to CDFG protocol-level requirements for special status plants, burrowing owl, and coastal California gnatcatcher. Additional pre-construction surveys for special status plants and wildlife would also be completed according to CDFG protocol-level requirements, as applicable, as outlined in the PDFs.

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3.10 Mineral Resources

Table 3.10-1 Mineral Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

3.10.1 Setting

The project would be located in the Santa Gertrudis Valley within the southwestern edge of the Perris Block portion of the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are comprised of a series of northwest-southeast trending mountains. The project crosses a rural residential area called Nicolas Valley. Santa Gertrudis Creek is a key feature in the area. Mineral resources in the project area consist of oil and gas and deposits of rock, sand, and gravel (CDMG 1991; COM 1994; COR 2003; COT 1993; DOGGR 1991).

Under the California State Surface Mining and Reclamation Act of 1975, Mineral Resource Zones (MRZs) are defined by the State Geologist and used to classify areas according to their level of significance as a mineral resource. MRZs are used to help identify and protect state mineral resources from urban expansion or other irreversible land uses that might preclude mineral extraction. The MRZ categories used to classify land include:

- SZ: Areas containing unique or rare occurrence of rocks, minerals, or fossils that are of outstanding scientific significance.
- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-2a: Areas underlain by mineral deposits where geologic data show that significant measured or indicated resources are present.
- MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

Segments of the project route cross areas of the County of Riverside and Cities of Temecula and Murrieta that are classified MRZ-3 (COR 2003; COT 1993). The California Division of Mines and

Geology has classified urbanizing lands according to the presence or absence of significant suitable sources of aggregate (CDMG 1991). No project components would be located on lands with an Open Space-Mineral Resource land use designation in the County of Riverside (COR 2003). These lands are held in reserve for future mining activities.

3.10.2 Environmental Impacts and Mitigation Measures

a. Would the project 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. No mining operations or oil and gas resources are located in the vicinity of the project area. While potential sand and gravel resources are present in the project area, no mining is currently occurring. These areas are classified MRZ-3. Development or impacts on MRZ-2 areas would potentially constitute a significant impact on mineral resources, but impacts on lands with the other classifications (SZ, MRZ-1, MRZ-3, or MRZ-4) would not. Therefore, the project would not result in the loss of availability to a known mineral resource that would be of value to the region and the residents of California. The project would result in no impact under this criterion.

b. Would the project 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. No locally-important mineral resources have been identified in the project area. The MRZ-3 areas crossed by the project route are not, at present, considered to contain mineral deposits of significant economic value. Therefore, the project would not 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. The project would result in no impact under this criterion.

References

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3.11 Noise

Table 3.11-1 Noise Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

3.11.1 Setting

The proposed Triton Substation site, the existing Canine Substation, and the proposed subtransmission line loop-in are located in the City of Temecula, in a rural residential area with light development. The proposed telecommunications lines routes would be in the City of Temecula, the City of Murrieta, and unincorporated Riverside County.

The substation property, which currently has two vacant mobile homes, is bounded by Nicolas Road to the north, undeveloped land and a vacant residence and vacant mobile home to the east, Calle Medusa road and two churches to the west, and residences to the south. Additionally, there are single-family residences located at some distance in all directions around the substation site.

Ambient noise level measurements and physical observations at the substation site indicate that the existing conditions during the daytime and nighttime hours are mainly the result of local traffic on Nicolas Road and Calle Medusa, and that existing noise levels are consistent within the general area of the Triton Substation (Veneklasen Associates 2009).

The Triton Substation site is located approximately 1.5 miles from the French Valley Airport. The Riverside County Airport Land Use Compatibility Plan has divided the area surrounding the airport into zones. The substation site would be located within Zone E, and the new subtransmission line loop-in would be in Zones D and E. The northern telecommunications line route, at its closest point, would be approximately 1,000 feet from the French Valley Airport and within Zones B1, C, D, and E (County of Riverside 2004). No private airstrips are located within 2 miles of the project area.

3.11.1.1 Sensitive Receptors

Noise- and vibration-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound or vibration could adversely affect the designated land uses. Typically, sensitive receptors on noise-sensitive lands include residences, hospitals, places of worship, libraries and schools, nature and wildlife preserves, and parks. Several land uses are especially sensitive to vibration, including concert halls, hospitals, libraries, vibration-sensitive research operations, residential areas, schools, and offices.

Three sensitive receptors for noise and vibration are located adjacent to the substation site. A church complex with two churches (Calvary Baptist Church of Temecula and Grace Presbyterian Church) would be located within about 100 feet west of the Triton Substation property. The closest occupied residence is within about 200 feet south of the property, on the hill overlooking the substation site. The Canine Substation is in the parking lot of one of the churches. The northern property boundaries of both churches are adjacent to the subtransmission line loop-in route and telecommunications lines route along Nicolas Road. Several residences are located immediately adjacent to the telecommunications lines routes. The location of the Triton Substation site in relationship to sensitive receptors is shown in Figure 3.11-1.

3.11.1.2 Regulatory Setting

Noise is measured in terms of sound-pressure level using units called decibels (dBs). Since the range of intensities that the human ear can detect is large, the scale is based in multiples of 10, the logarithmic scale. Each interval of 10 decibels indicates a sound energy 10 times greater. Each interval is perceived by the human ear as being roughly twice as loud.

The most common system used by regulatory bodies for noise measurement is the A-weighted decibel scale. The A-weighted decibel (dBA) scale measures sound as an approximate to how a person perceives or hears sound. A-weighted sound levels are typically measured or presented as the equivalent sound pressure level (L_{eq}), which is defined as the average noise level, on an equal energy basis for a stated period of time. Sound levels are usually best represented by an equivalent level over a given time period (L_{eq}) or by an average level occurring over a 24-hour day-night period (L_{dn}).

The L_{dn}, or day-night average sound level (DNL), is equal to the 24-hour A-weighted equivalent sound level that is weighted to account for differences in noise levels and the perception of noise levels during nighttime hours (10:00 p.m. to 7:00 a.m.). Community Noise Equivalent Level (CNEL) is a noise index that accounts for the greater annoyance of noise during both the evening hours (7:00 p.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.). The CNEL and DNL scales were developed because during the evening and at night, background noise levels are generally lower than during the daytime. Most household noise also decreases at night, however, and exterior noise becomes more noticeable.

Noise levels in communities usually relate to the intensity of nearby human activity. Noise levels are generally considered to be low at levels below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the L_{dn} noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, the L_{dn} is more likely to be around 50 to 60 dBA. The general human response to changes in noise levels that are similar in frequency content (e.g., increases in continuous [L_{eq}] traffic noise levels) are summarized as follows:

- A 3-dB change in sound level is considered a barely noticeable difference.
- A 5-dB change in sound level will typically be noticeable.
- A 10-dB change is considered to be a doubling in loudness.

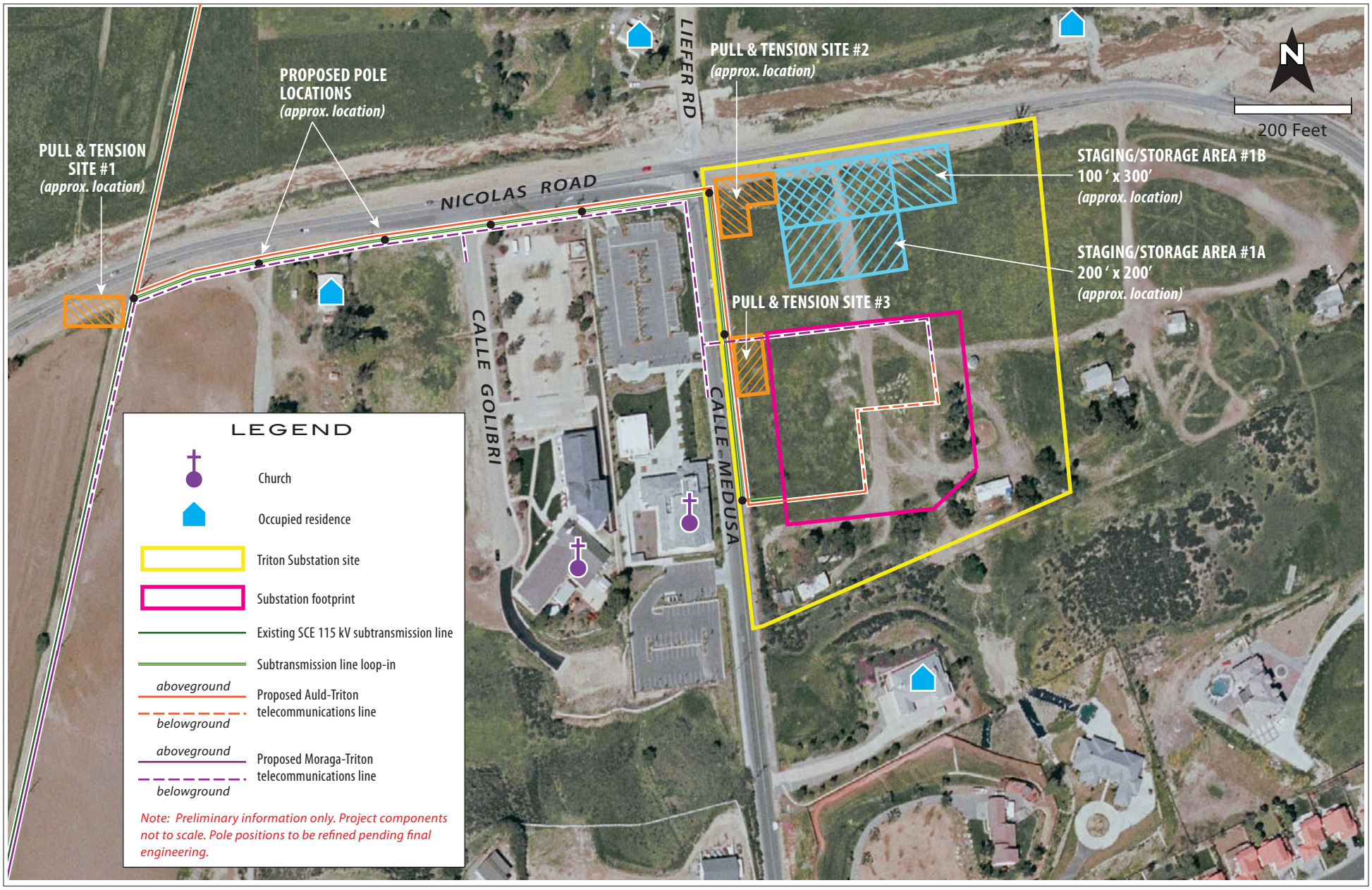

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Figure 3.11-1

Noise Sensitive Receptors Near the Triton Substation Site

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Another community annoyance related to noise is vibration. As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized by displacement, velocity, and/or acceleration. Vibration can be felt outdoors, but the perceived intensity of vibration impacts are much greater indoors, due to the shaking of the structure. Some of the most common sources of vibration come from trains or transit vehicles, construction equipment, airplanes, and large vehicles. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies (County of Riverside 2003).

County of Riverside

The Noise Element of the County of Riverside General Plan establishes parameters for noise levels according to land use designation. For low-density and multifamily residential land use, the maximum normally acceptable noise level is 60 dBA and 65 dBA, respectively (CNEL/DNL) (County of Riverside 2003).

Some of the construction equipment that would be used for the project would generate noise levels in excess of these limits. However, Riverside County Noise Ordinance No. 847 (as amended through 847.1) exempts private construction projects within 0.25 miles of an inhabited dwelling from the general sound level standards as long as they occur between 6:00 a.m. and 6:00 p.m. from June through September and between 7:00 a.m. and 6:00 p.m. from October through May (County of Riverside 2007). SCE would obtain an exemption in the event that construction was to occur outside of designated daytime hours. In addition, the ordinance specifies that is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act.

Policy N4.1 of the Noise Element of the County of Riverside General Plan is to prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:

a. 45 dBA-10-minute L_{eq} between 10:00 p.m. and 7:00 a.m.
b. 65 dBA-10-minute L_{eq} between 7:00 a.m. and 10:00 p.m.

City of Temecula

Decommissioning of the Canine Substation and construction of the Triton Substation site, subtransmission line loop-in, and segments of the telecommunications lines would occur in the City of Temecula.

The City of Temecula General Plan Noise Element establishes noise and land use compatibility guidelines based on cumulative noise criteria for outdoor noise. Chapter 9.20 of the Temecula Municipal Code establishes a maximum acceptable exterior noise level of 65 dBA in low density rural areas, such as substation site, and up to 70 dBA in medium to high density residential areas. Chapter 9.20.070 allows construction-related exceptions to these standards only through City approval. Some of the construction equipment that would be used for the project would generate noise levels in excess of these limits, and the applicant would be required to obtain approval for an exception.

Construction activity within 0.25 miles of an occupied residence is also restricted to the hours of 7:00 a.m. and 6:30 p.m., weekdays, and 7:00 a.m. to 6:30 p.m. Saturdays, and is not allowed Sundays and nationally recognized holidays unless exempted by Section 9.20.070 of the Temecula Municipal Code. SCE would obtain an exemption in the event that construction was to occur outside of designated daytime hours.

The City of Temecula General Plan establishes that the noise contour along Nicolas Road during both the baseline (2002) and projected (2025) years corresponds to a 60 dBA CNEL noise level (City of Temecula

1993). According to a recent noise survey conducted at the Triton Substation site, existing noise levels are 51.2 dBA in the daytime and 33.3 dBA in the nighttime (Veneklasen Associates 2009). According to the City of Temecula General Plan, the baseline (2003) and future (2013) noise contours of the French Valley Airport correspond to a noise level of 55 dBA CNEL (City of Temecula 1993).

City of Murrieta

The installation of a section of the telecommunications lines would occur in the City of Murrieta. Chapter 16.30 of the City of Murrieta Municipal Code establishes noise standards to protect the health, safety, and welfare of those living and working in the city and to implement policies of the general plan noise element. The code specifically exempts utility company maintenance and construction operations at any time on public right-of-way from the regulations.

The Noise Element of the City of Murrieta General Plan indicates that the maximum normally acceptable noise level is 60 dBA for low-density residential land use and 65 dBA for multifamily residential land use. Plan policies are to limit the hours of construction activity in residential areas to reduce intrusive noise in early morning and evening hours and on weekends and holidays (City of Murrieta 1994).

Chapter 16.30.130 of he City of Murrieta Municipal Code specifies that operating or permitting the operation of any device that creates vibration that is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property, or at one hundred fifty (150) feet from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.

3.11.1.3 Noise from Project Construction

During the 8-month construction period, concurrent activities would likely occur due to overlap of work for the Triton Substation and the subtransmission line loop-in. The Canine Substation would be decommissioned after construction of the Triton Substation. Work for the telecommunications lines would be distributed along corridors that connect the Triton Substation to the Auld and Moraga Substations through the Cities of Murrieta and Temecula and unincorporated Riverside County. Construction equipment and the typical dBA noise levels associated with their use are presented in Table 3.11-2.

Table 3.11-2 Equipment Types and Typical Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88

Table 3.11-2 Equipment Types and Typical Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from source
Loader	85
Paver	89
Pneumatic Tool	85
Pump	76
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Truck	88

Source: FHWA 2006
Notes: Cited from Federal Transportation Administration Transit Noise and Vibration Guidance Handbook (FTA Construction Equipment Noise Levels).

The loudest equipment during construction would contribute to a composite average or equivalent site noise level. During a typical day, average noise levels from construction equipment would not be operated continuously at peak levels. According to the applicant, the maximum intermittent noise levels are expected to range from 74 to 98 dBA at approximately 50 feet, and noise levels would be further attenuated by distance to the receptor and the presence of structures and vegetation. Assuming a scenario under which multiple pieces of the loudest equipment are used, the applicant estimated upper-bound noise levels from construction activities of 83 dBA at a distance of 50 feet. This estimate assumes usage factors[1] of 40 percent to 50 percent for the loudest equipment (Table 3.11-3). While this would represent a noticeable temporary increase in the ambient noise levels near the construction sites, the noise would attenuate with increasing distance, fading into the ambient noise background levels at distances over 0.5 miles from the loudest equipment.

Table 3.11-3 Predicted Construction Equipment Noise Levels versus Distance

Distance from Project Route or Triton Substation Property Line (feet)	L_{eq} Noise Level (dBA)
50	83
100	79
200	74
400	69
800	63
1,600	58
3,200	52
6,400	46

Source: SCE 2008

[1] Usage factor is used to time-average the noise levels associated with an operating piece of equipment. It is expressed as the fraction of time that the equipment is operated at full power while on the construction site.

3.11.1.4 Noise from Project Operation

There are two potential sources of operational noise associated with the project: corona noise from the subtransmission line loop-in and substation equipment and transformer noise from the substation. In addition, maintenance activities would be potential sources of audible noise.

The corona effect is the ionization of the air that occurs at the surface of the energized conductor and suspension hardware due to very high electric field strength at the surface of the metal during certain conditions. Corona generates audible noise during operation of transmission lines and substation equipment. The noise is generally characterized as a crackling, hissing, or humming noise. The amount of corona produced by a transmission line is a function of the voltage of the line, the diameter of the conductor, the elevation of the line above sea level, the condition of the conductor and hardware, and the local weather conditions. The noise is most noticeable during wet conductor conditions such as rain or fog.

According to the applicant, the calculated audible noise levels expected from the subtransmission line loop-in are very low, generally less than 15 dBA L_{50} in rainy conditions (or foul weather).[2] The predicted levels are illustrated in Figure 3.11-2. Likewise, the capacitor banks at Triton Substation would be supported by metallic structures (or frames) and surrounded by metallic fences. These design practices significantly reduce the voltage gradient on the energized conductive materials, which results in reduced corona noise.

Transformer noise is the other potential source of noise associated with substations. Transformers emit a characteristic hum resulting from magnetostrictive forces that cause the core to vibrate. In addition, transformer cooling fans produce noise when they operate. The Triton Substation would be surrounded by an 8-foot-high block wall.

The applicant proposes to place two 115/12 kV 28 MVA transformers within the substation. A noise study for the project predicts that the noise contribution from two 115/12 kV, 16.8/22.4/28 MVA Southern California Edison standard National Electrical Manufacturers Association 6-dB transformers with fans operating would be about 35 dBA (at a distance of 1 meter), being perceived at a level of 25 to 27 dBA at the closest sensitive receptor (Veneklasen Associates 2009).

Future expansion to a 112 MVA substation, which would be conducted in two additional phases at some future date depending on need, would require two additional transformers for a total of four. The noise associated with the addition of two identical transformers can be estimated as doubling the identical sound sources[3], resulting in an increase of 3 dBA. In other words, if the applicant were to install all four identical transformers with the specifications described in the noise study, the noise associated with them is estimated to be an increase of 3 dBA to a total range of 28 to 30 dBA at the closest sensitive receptor.

Maintenance activities would typically occur over a short timeframe, up to two times per month. They would generate minimal noise. Maintenance activities are primarily inspection-related (e.g., annual inspection of the subtransmission line loop-in using vehicles). Other maintenance activities include washing of insulators to ensure proper function and would be conducted on an as-needed basis, but are anticipated to occur less than once per year.

[2] L_{50} means that the A-weighted sound level exceeded 50% of the time during a specified time period.

[3] The combination of two or more sound pressure levels at a single location involves the addition of logarithmic quantities. A doubling of identical sound sources results in a 3 dB increase.

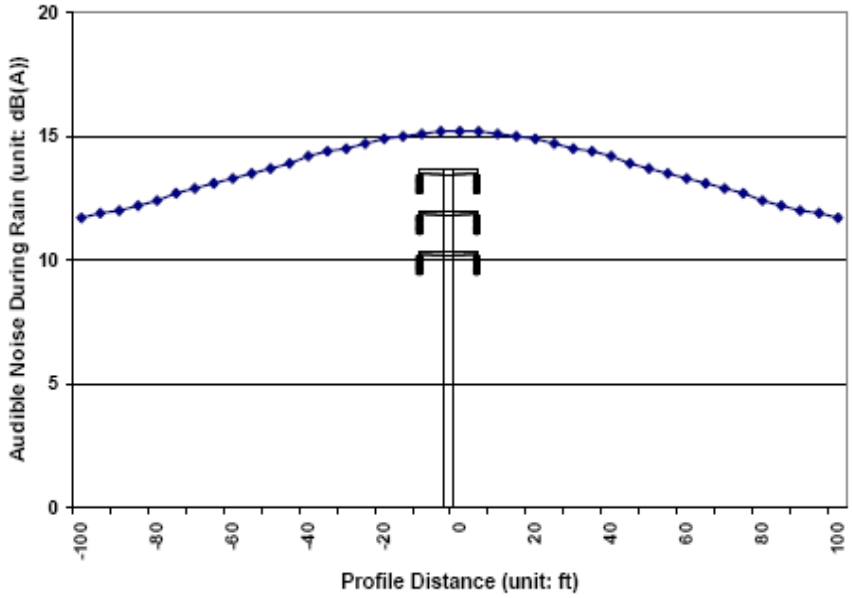

Figure 3.11.2 Expected Corona Noise Levels for the Double-Circuit 115 kV Subtransmission Line Loop-in

3.11.1.5 Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts due to noise. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF NOI-1: Construction Equipment Working Order

PDF NOI-2: Hearing Protection for Workers

PDF NOI-3: Low-Level Noise Equipment

PDF AES-5: Substation Block Wall

PDF BIO-10: Noise

PDF LU-1: Public Notification and Complaint Procedures

3.11.2 Environmental Impacts and Mitigation Measures

a. Would the project result in 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 WITH MITIGATION INCORPORATED. The project would be constructed in Temecula, Murrieta, and portions of unincorporated Riverside County. Construction for the initial build-out to a 56 MVA substation, installation of the telecommunications lines, and construction of the subtransmission line loop-in would be temporary, occurring over an 8-month period. Decommissioning of the Canine Substation would occur over a short period of time soon after the Triton Substation was built, and expansion to a 112 MVA substation would occur over a short period of time sometime in the future, depending on need.

Construction of the project would cause noise, primarily from vehicles, on-road equipment, and trucks needed to bring materials to the construction sites. Haul trucks would make trips to bring poles, conductor, telecommunications lines, and other materials to the construction site and remove waste. Estimated peak noise levels associated with passing trucks and commuting worker vehicles would be approximately 70 to 75 dBA at 50 feet and would be concentrated along the major streets and access roads.

To address potential impacts from construction noise, the applicant would keep construction equipment in good working order and minimize idling time (PDF NOI-1) and provide hearing protection to all project workers (PDF NOI-2). In addition, under PDF LU-1, public notification and complaint procedures and a toll-free number would be established for addressing concerns regarding construction activities, including but not limited to dust and noise.

Utility construction in public rights of way in Murrieta is exempt from noise code requirements. While some of the construction equipment that would be used for the project would generate noise levels in excess of normally accepted levels in Riverside County, Temecula and Murrieta, construction-related exemptions are allowed with City approval in Temecula and if construction occurs during normal daytime hours in Riverside County and Murrieta. The applicant would be required to obtain approval for exemptions to the noise limits and in the event that construction was to occur outside of designated daytime hours. Therefore, impacts from construction noise would be less than significant under this criterion.

There are two potential sources of operational noise associated with project facilities: corona noise from the substation equipment and subtransmission line loop-in and transformer noise from the substation. To address potential impacts from operational noise from the substation, the applicant would select equipment or install barriers to achieve a level of 60 dBA at the closest sensitive receptor, as available and practicable (PDF NOI-3). In addition, the applicant would enclose the substation facility within an 8-foot block wall (PDF AES-5) that would provide additional noise absorption and diffusion to sound levels.

According to the applicant, audible noise produced by corona discharge from Triton Substation equipment (including the capacitor banks) would not be significant outside of the property fence lines, even under rainy conditions. Corona noise from the subtransmission line loop-in is expected to be relatively low, generally less than 15 dBA L_{50} even in rainy conditions. Likewise, design of the capacitor banks at Triton Substation would result in reduced corona noise.

A noise study for the project predicts that the noise contribution from two 115/12 kV, 16.8/22.4/28 MVA Southern California Edison standard National Electrical Manufacturers Association 6-dB transformers with fans operating would be about 35 dBA (at a distance of 1 meter), being perceived at a level of 25 to 27 dBA at the closest sensitive receptor. However, actual corona and transformer noise levels from operation of the Triton Substation would depend on final design and equipment selection. There is a potential for the noise levels to exceed worst-case noise levels set by Policy N4.1 of the Noise Element of the County of Riverside General Plan. The policy prohibits facility-related noise levels, received by any sensitive use, from exceeding the following:

a. 45 dBA-10-minute L_{eq} between 10:00 p.m. and 7:00 a.m.

b. 65 dBA-10-minute L_{eq} between 7:00 a.m. and 10:00 p.m.

With implementation of MM NOI-1, potential impacts from operational noise would be reduced to less than significant under this criterion.

> **MM NOI-1: Low-noise Substation Equipment and Noise Barriers.** The applicant will ensure that substation operational noise levels will not exceed 45 dBA-10-minute L_{eq} at the closest sensitive receptor. This will be achieved either through use of low-noise substation equipment or installation of noise barriers or both.

In addition to facility noise, maintenance activities would be potential sources of audible noise. Noise from maintenance activities associated with project facilities would primarily be from maintenance vehicles and are expected to occur relatively infrequently and over a short duration. Therefore, impacts from noise from maintenance activities would be less than significant under this criterion.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

LESS THAN SIGNIFICANT IMPACT. Construction vibration would occur mainly from heavy-duty construction equipment, e.g., trucks, backhoes, excavators, loaders, and cranes. Groundborne vibration generated from operation of the project would be minimal and would be primarily from maintenance vehicles.

The level of groundborne vibration from construction activities that could reach sensitive receptors depends on the distance to the receptor, the type of equipment creating vibration, and the soil conditions surrounding the construction site. Ground vibration from construction equipment, such as the tamping of ground surfaces, the passing of heavy trucks on uneven surfaces, and the excavation of trenches, could create perceptible vibration in the immediate vicinity of the activity.

Activities associated with construction of the substation, excavation for and installation of the tubular steel poles for the subtransmission line loop-in, and decommissioning of the Canine Substation would have the greatest potential to cause groundborne vibration. There are no sensitive receptors within 25 feet of these construction areas. Groundborne vibration is expected to be less from activities associated with installation of the telecommunications lines, decommissioning of the emergency transformer bank at Auld Substation, and expansion of the substation to a 112 MVA substation.

Noise and vibration from construction activities may be intermittent or continuous with a short duration. Additionally, both groundborne vibration and noise would be temporary and would occur during daytime hours. Therefore, construction and operation of the project would result in a less than significant impact under this criterion.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT IMPACT. Noise associated with construction of the project, including decommissioning of the Canine Substation, would not be permanent (approximately 8 months). Corona noise associated with operation of the subtransmission line loop-in is not anticipated to be generally audible.

The City of Temecula General Plan establishes that the noise contour along Nicolas Road during both the baseline (2002) and projected (2025) years corresponds to a 60 dBA CNEL noise level (City of Temecula 1993). According to a recent noise survey conducted at the Triton Substation site, existing noise levels are 51.2 dBA in the daytime and 33.3 dBA in the nighttime (Veneklasen Associates 2009). According to the

City of Temecula General Plan, the baseline (2003) and future (2013) noise contours of the French Valley Airport correspond to a noise level of 55 dBA CNEL (City of Temecula 1993).

To address potential impacts from operational noise from the substation, the applicant would select equipment or install barriers to achieve a level of 60 dBA at the closest sensitive receptor, as available and practicable (PDF NOI-3). Therefore, the project would result in a less than significant impact under this criterion.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. It is expected that noise from construction equipment and vehicles would result in temporary contributions to the ambient noise levels in the project vicinity during the 8-month construction period for the initial build-out to a 56 MVA substation, expansion to a 112 MVA substation, and for decommissioning of the Canine Substation. As shown in Table 3.11-3, potential noise levels during construction would represent a temporary increase to approximately 74 to 79 dBA at the closest receptor (located within about 150 feet), which is about 15 dBA more than baseline (existing) daytime noise levels for the area (51.2 dBA). Noise from trucks, commuter vehicles, and other on-road equipment, which would mainly be along streets and access roads, would produce peak noise levels of approximately 88 dBA at 50 feet from the source. These temporary increases in noise levels near construction sites would attenuate to ambient levels at distances over 0.5 miles.

According to cumulative noise criteria published by the Federal Transit Administration (FTA) and the U.S. Environmental Protection Agency (EPA), a 2% increment over existing outdoor noise levels represents the minimum measurable change in community reaction, and it is considered to be the lowest threshold where impacts start to occur (FTA 2006)[4]. Thus, at an existing daytime noise level between 50 and 55 dBA, a 5 dBA increase would be noticeable and likely to create annoyance at the closest receptors during the construction period.

To address potential impacts from temporary increases of ambient noise levels during construction, the applicant would keep construction equipment in good working order and minimize idling time (PDF NOI-1) and provide hearing protection to all project workers (PDF NOI-2). Under PDF LU-1, public notification and complaint procedures and a toll-free number would be established for addressing concerns regarding construction activities, including but not limited to dust and noise. Under PDF BIO-10, temporary measures would be used to minimize the effects of noise on biological resources in adjacent areas. In addition, implementation of the following measures would mitigate the effects of a substantial temporary increase of ambient noise levels within the project vicinity, resulting in a less than significant impact under this criterion:

MM NOI-2: Restricted Work Hours. The applicant will ensure that project construction activities are restricted to daytime hours from 7:00 a.m. to 6:30 p.m. to avoid community nuisances.

MM NOI-3: Noise Reduction and Control Practices. The applicant will employ the following noise reduction and control practices during construction:

- Construction activities will be phased so that all equipment is not operating simultaneously.

[4] The cumulative impact criteria published by the FTA (2006) are based on general community reactions to noise at varying levels which have been documented in scientific literature and do not account for specific community attitudinal factors that may exist.

- Construction traffic will be routed away from residences and other sensitive receptors, as feasible.
- Noise from back-up alarms (alarms that signal vehicle travel in reverse) in construction vehicles and equipment will be reduced by providing a layout of construction sites that minimizes the need for back-up alarms and using flagmen to minimize time needed to back up vehicles. As feasible, and in compliance with the applicant's safety practices and public and worker safety provisions required in the Occupational Safety and Health Standards for the Construction Industry (29 CFR Part 1926), the applicant may also use self-adjusting, manually adjustable, or broadband back-up alarms to reduce construction noise.

Substation noise is generally constant and would not be expected to fluctuate during operation. Corona noise associated with operation of the subtransmission line loop-in is not anticipated to be generally audible. To address potential impacts from operational noise from the substation, the applicant would select equipment or install barriers to achieve a level of 60 dBA at the closest sensitive receptor, as available and practicable (PDF NOI-3). With implementation of MM NOI-1, potential impacts from project operational noise would be reduced to 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 expose people residing or working in the project area to excessive noise levels?

LESS THAN SIGNIFICANT IMPACT. The Triton Substation site is located approximately 1.5 miles from the French Valley Airport. The closest sensitive receptors for noise are two churches and a residence within about 200 feet of the substation property. According to the City of Temecula General Plan, the baseline (2003) and future (2013) noise contours of the French Valley Airport correspond to a noise level of 55 dBA CNEL.

Although high noise levels from aircraft operation could occur at the Triton Substation site during construction, the temporary nature of construction work would limit the amount of noise exposure to workers and nearby residents. Construction workers associated with the project would use appropriate noise safety protection during construction (PDF NOI 2).The northern telecommunications line route passes approximately 1,000 feet east of the French Valley Airport and, therefore, could potentially expose workers and the nearest receptors to excessive air traffic noise. However, the duration of construction along this segment would be temporary, lasting no more than several days.

Operation of the Triton Substation would be unmanned, and the electrical equipment within the substation would be remotely monitored and controlled. Though project personnel would visit the substation periodically for maintenance purposes, these visits would result only in the possibility of temporary exposure to aircraft noise and there would be minimal additional exposure to noise from the project. Therefore, potential impacts from construction and operation of the project would be less than significant under this criterion.

f. For a project within the vicinity of a private air strip, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. No private airstrips are located within 2 miles of the project area. Therefore, construction and operation of the project would result in no impact under this criterion.

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3.12 Population and Housing

Table 3.12-1 Population and Housing Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

3.12.1 Setting

The Cities of Temecula and Murrieta and Riverside County have experienced rapid development and population growth between 1990 and 2008, and are projected to continue growing both in population and housing (Riverside County 2008). The Southern California Association of Governments (SCAG) evaluates and makes projections of population and housing growth based on U.S. Census data. The 2000 U.S. Census reported that the population of Riverside County was 1,545,387, which includes a population of 57,716 in the City of Temecula and a population of 44,282 in the City of Murrieta (U.S. Census 2000).

SCAG projects that the current growth will continue at a strong rate throughout the County, especially in incorporated areas (SCAG 2008). The recent and projected growth of population and housing in these areas is summarized below in Table 3.12-2. In general, the projected increase in housing needs for Riverside County is expected to correspond to the projected increase in population. Tables 3.12-3 and 3.12-4 present information on housing units, total employment, and employment in the construction trades in the project area.

Table 3.12-2 Project Area Populations, Households, and Projections

	2000 Census	2010 Projection	*Projected Growth, 2000-2010*		2020 Projection	*Growth 2010-2020*	2030 Projection	*Growth 2020-2030*
			Number	*Percent*				
Populations and Projections								
Temecula	57,716	99,387	41,671	72%	112,551	13,164	121,495	8,944
Murrieta	44,282	103,726	59,444	134%	114,370	10,644	123,550	9,180
UI West Riverside County	NA	526,517	NA	NA	664,725	138,208	783,622	118,897
Riverside County Total	1,545,387	2,242,744	697,357	45%	2,809,006	566,262	3,343,777	534,771
Households and Projections								
Temecula	18,293	31,579	13,286	73%	35,048	3,469	37,644	2,596
Murrieta	14,320	34,744	20,424	143%	37,564	2,820	40,391	2,827

Table 3.12-2 Project Area Populations, Households, and Projections

	2000 Census	2010 Projection	*Projected Growth, 2000-2010*		2020 Projection	*Growth 2010-2020*	2030 Projection	*Growth 2020-2030*
			Number	*Percent*				
UI West Riverside County	NA	166,479	NA	NA	214,737	48,258	252,975	38,238
Riverside County Total	506,218	720,531	214,313	42%	913,207	192,676	1,097,950	184,743

Source: U.S. Census 2000, SCAG 2008

Notes: The City of Murrieta incorporated in 1991, and population estimates are not available for 1990. UI = Unincorporated

Table 3.12-3 Project Area Housing

Location	Housing Units, 2000 (US Census)		Housing Units, 2008 (Riverside County)	
	Total Units	*Vacancy Rate*	*Total Units*	*Vacancy Rate*
Temecula	19,099	4%	32,453	4.1%
Murrieta	14,921	4%	34,248	4.6%
Riverside County	584,674	13%	773,331	13%

Source: U.S. Census 2000, Riverside County 2008

Table 3.12-4 Project Area Employment

Location	Employment, 2005			Employment, 2008 (EDD)		
	Total Employed (EDD)	*In Construction Trades (County of Riverside)*	*Unemployment Rate (EDD)*	*Total Employed*	*In Construction Trades*	*Unemployment Rate*
Temecula	34,000	5,279	3.6%	35,200	NA	5.8%
Murrieta	25,500	2,526	3.5%	26,400	NA	5.6%
Riverside County	811,300	77,600	5.2%	839,900	NA	8.6%

Source: EDD 2005, Riverside County 2008

The applicant estimates that approximately 114 construction personnel would be required for project construction. The applicant may assign in-house construction workers for project construction, or hire a third party contractor, or a combination of both. Most, if not all, project construction workers are expected to originate from the regional labor pool in Riverside County or surrounding communities, and relocation and permanent housing of construction workers is not expected to be required for the project.

The project includes the construction of a new 56 MVA substation, which is designed to be expandable to 112 MVA. Expansion of the substation, which the applicant does not anticipate would occur prior to 2018, would be conducted in response to future growth.

Riverside County and the Cities of Temecula and Murrieta all include policies addressing housing, employment, and growth management in their respective general plan documents. The City of Temecula General Plan Growth Management Element includes a number of goals and policies addressing the orderly management of growth in the city, including policies to guide the timing and provision of facilities and services to support development while protecting and enhancing quality of life, and ensure that the phasing of public facilities and services occurs in a way that new development is adequately supported as it develops. The City's Land Use Element also addresses future growth in the city, with policies that include directing this growth into the French Valley Future Growth Area (north of the substation site). The City of Murrieta and Riverside County General Plans also address anticipated rapid growth in the region, and include policies to manage this growth so that it takes place in an orderly way, as well as policies for the adequate provision of housing and utility services.

In addition, the Western Riverside County MSHCP addresses growth, acknowledges that the region is rapidly urbanizing, and predicts that population in Riverside County will double between 2000 and 2020, resulting in the urbanization of thousands of acres of land (Riverside County TLMA 2008). The MSHCP includes a discussion of "Future Facilities" that are expected to be constructed in the region, including electric utilities such as the project.

3.12.2 Environmental Impacts and Mitigation Measures

a. Would the project 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. While implementation of the project would remove a potential barrier to development in the area, the project is consistent with development anticipated by plans and zoning in the jurisdictions that the project would serve. The availability of electrical capacity by itself does not normally ensure or encourage growth within a particular area. Other factors such as economic conditions, land availability, population trends, availability of water supply or sewer services and local planning policies have a more direct effect on growth.

Growth is anticipated and planned in the project area through applicable local planning policies and zoning ordinances. Construction of the project would allow SCE to continue to provide safe and reliable electrical service in its Electrical Needs Area (Figure 1-2) and to correct existing overload conditions. The project is designed to increase reliability and accommodate existing and planned electrical load growth rather than to induce growth. Similarly, future expansion of the substation from 56 MVA to 112 MVA, which the applicant does not anticipate would take place prior to 2018, would be conducted in response to future growth rather than as an inducement to it.

The project would not include the construction of new homes or businesses. Following construction, project facilities would not be manned and would require only routine periodic maintenance or infrequent emergency repairs. Implementation of the project would not result in any additional long-term staffing increases and would not induce long-term population growth in the project area, either directly or indirectly.

Construction activities in the project area for the initial build-out to a 56 MVA substation are expected to last approximately 8 months. An estimated 114 construction workers would be required for the initial build-out, including the substation, the subtransmission line loop-in, and the telecommunications lines. At no point during construction of the project would all 114 workers be working at the same time due to the sequential nature of construction and specialized labor. Workers would also be required to decommission the Canine Substation and emergency transformer bank at Auld Substation. If the Triton Substation is later expanded to 112 MVA, workers would be required as well. The number of workers, however, would be considerably less than required for the initial build-out.

A considerably large construction workforce is available within the project region, as shown in Table 3.12-4. Most, if not all, project construction workers are expected to originate from the regional labor pool in Riverside County or surrounding communities, and would not generate a permanent increase in population levels or result in a decrease in available permanent housing. Temecula, Murrieta, and Riverside County have enough temporary housing to accommodate 114 construction workers during the 8-month construction period, and no new temporary, short-term housing would be required to be constructed to accommodate them. Implementation of the project is not expected to result in a significant increase to the local population or housing market, and would not indirectly induce growth by creating

new opportunities for local industry or commerce. Therefore, the impact on population growth from construction of the project would be less than significant.

Impacts associated with the potential facilitation of growth through the expansion of the project are also discussed under Section 3.18., Mandatory Findings of Significance.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

LESS THAN SIGNIFICANT IMPACT. The telecommunications lines and subtransmission line loop-in would be located along or within existing roads and rights-of-way. Initial build-out of the project as a 56 MVA substation, future expansion to a 112 MVA substation, and construction of the 12 kV distribution duct banks would take place on a site that had residential uses in the past. Two vacant mobile homes are scheduled to be removed from the substation property, although their removal is not required to implement the project. Decommissioning of the Canine Substation and emergency transformer bank at Auld Substation would not result in the displacement of substantial numbers of existing housing.

Operation of the Triton Substation would be unmanned, and the electrical equipment within the substation would be remotely monitored and controlled. The applicant's personnel would generally visit the site infrequently for electrical switching and routine maintenance. Operation of the project would not generate a large operations-related workforce from out of the area that would require permanent housing; therefore, there would be no impact on existing housing from operation of the project.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The telecommunications system and subtransmission line loop-in would be located along or within existing roads and rights-of-way. Initial build-out of the project as a 56 MVA substation, future expansion to a 112 MVA substation, and construction of the 12 kV distribution duct banks would take place on a site that had residential uses in the past. Two vacant mobile homes are scheduled to be removed from the substation property, although their removal is not required to implement the project. Decommissioning of the Canine Substation and emergency transformer bank at Auld Substation would not result in the displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Construction of the project would require the temporary employment of a relatively small workforce (114 construction personnel over a 8-month period), which would not be large enough to displace a substantial number of people. The project would not necessitate the construction of replacement housing elsewhere, and therefore, construction and operation would result in no impact on existing population.

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3.13 Public Services

Table 3.13-1 Public Services Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

3.13.1 Setting

The need for public services in a given jurisdiction is largely affected by that jurisdiction's population and rate of growth. The demand for public services such as fire and police protection, schools, and libraries is directly correlated to population size. The City of Temecula, City of Murrieta, and Riverside County general plans all include policies addressing growth and the provision of adequate, effective, and cost-efficient public services to meet demand (City of Temecula 2005, City of Murrieta 1994, Riverside County 2003).

Most, if not all, project construction workers are expected to originate from the regional labor pool in Riverside County or surrounding communities, and relocation and permanent housing of construction workers is not expected to be required for the project. Except for periodic, routine maintenance visits, project operation would be conducted remotely and would not call for the relocation of employees to the project area.

The Triton Substation would be located within the City of Temecula, while the telecommunications lines are located within the Cities of Temecula and Murrieta and unincorporated areas of Riverside County. The subtransmission line loop-in and the telecommunications lines would be installed within the applicant's existing rights-of-way. The project would not require the new construction or alteration of public service facilities.

Public service providers by jurisdiction are listed in Table 3.13-2. Table 3.13-3 identifies schools within 2 miles of the Triton Substation site.

The closest hospital facilities to the project area are the Rancho Springs Medical Center in Murrieta, approximately 7 miles from the Triton Substation site, and the Inland Valley Regional Hospital in Wildomar, approximately 12 miles from the site. The Inland Valley Regional Hospital is the region's trauma center, providing emergency medical services, trauma surgery, intensive care, diagnostic imaging, and rehabilitation.

Table 3.13-2 Public Service Providers by Jurisdiction

Jurisdiction	Public Service System Provider
City of Temecula	Fire Protection/EMT: Contracted to Riverside County Fire Department (operating in conjunction with California Department of Forestry and Fire Protection). Response time: under five minutes. Nearest fire station to the substation site: Station 73 (Rancho California Station), at 27415 Enterprise Circle West (approximately 3.5 miles from substation site). (Roripaugh Ranch Station constructed but unoccupied.) Police Protection: Contracted to Riverside County Sheriff's Department. Currently meeting level of service standards. Nearest station to the substation site: Southwest Station, 30755 Auld Road, Murrieta (approximately 3 miles from main project area). (Also California Highway Patrol.) Schools: Temecula Valley Unified School District (TVUSD), private schools Parks: See Recreation Section. Libraries: Part of Riverside County Library System. Grace Mellman Community Library (Temecula County Center Library), Temecula Public Library Hospitals: None within city limits. Rancho Springs Medical Center, Murrieta (approximately 7 miles from substation site). Inland Valley Regional Medical Center, Wildomar (approximately 12 miles from substation site).
City of Murrieta	Fire Protection/EMT: City of Murrieta Fire Department (MFD). Response time: under five minutes. Nearest fire station to the substation site: Station 3, on Whitewood Ave. MFD also operates under a mutual aid agreement with Riverside County. Police Protection: City of Murrieta Police Department. Response time: under six minutes. Department station located at 24701 Jefferson Ave. (approximately 5.5 miles from substation site). Nearest Riverside County station: Southwest Station, as noted above for City of Temecula. (Also California Highway Patrol.) Schools: Murrieta Valley Unified School District (MVUSD), private schools Parks: See Recreation Section. Libraries: Murrieta Public Library Hospitals: Inland Valley Regional Medical Center, Wildomar (approximately 12 miles from substation site), Rancho Springs Medical Center (approximately 7 miles from substation site).
Riverside County	Fire Protection/EMT: Riverside County Fire Department, California Department of Forestry and Fire Protection (CDF). Response time: generally under five minutes. Nearest fire station to the substation site: Station 73, as noted above for City of Temecula. Police Protection: Riverside County Sherriff's Department. Currently meeting level of service standards. Nearest station to the substation site: Southwest Station, as noted above for City of Temecula. (Also California Highway Patrol.) Schools: 23 school districts, including TVUSD and MVUSD, private schools Parks: See Recreation Section. Libraries: Riverside County Library System, 32 libraries (and two bookmobiles), and including Temecula libraries Hospitals: Riverside County Regional Medical Center, Moreno Valley (approximately 40 miles from substation site), Inland Valley Regional Hospital, Wildomar (approximately 12 miles from substation site), Rancho Springs Medical Center, Murrieta (approximately 7 miles from substation site)

Sources: City of Murrieta 2009a, 2009b, 2009c, 1994; City of Temecula 2009a, 2009b, 2005; Inland Valley Regional Medical Center 2009; Murrieta Valley Unified School District 2009; Riverside County 2003; Riverside County Fire Department 2009; Riverside County Library System 2009a, 2009b; Riverside County Office of Education 2009; Riverside County Regional Medical Center 2009; Riverside County Sheriff's Department 2009; Temecula Valley Unified School District 2009

Table 3.13-3 Schools Within 2 Miles of the Triton Substation Site

School	Street Address	Approximate Distance From Substation Site (miles)
Nicolas Valley Elementary School	39600 N General Kearny Rd., Temecula	0.7
Morningstar Christian Academy	30513 North Gate Lane, Murrieta	1.3
Bella Vista Middle School	31650 Browning St., Murrieta	1.4
Chaparral High School	27215 Nicolas Rd., Temecula	1.8
Margarita Middle School	30600 Margarita Rd., Temecula	2.0
James L. Day Middle School	40775 Camino Campos Verde, Temecula	2.0
Warm Springs Middle School	39245 Calle De Fortuna, Murrieta	2.0

Park and recreation facilities in the cities of Temecula and Murrieta are discussed in the Recreation Section.

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on public services. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF HAZ-4: Traffic Control

PDF HAZ-5: Fire Prevention and Response Practices

PDF HAZ-6: Vegetation Clearance

PDF HYDRO-3: Material Safety Data Sheets

PDF HYDRO-4: Spill Prevention, Control, and Countermeasure Plan

PDF TT-1: Traffic Control Services

PDF TT-3: Traffic Management

PDF TT-4: Repair Damaged Streets

3.13.2 Environmental Impacts and Mitigation Measures

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?

LESS THAN SIGNIFICANT IMPACT. Fire and emergency services would be required for the project area during construction and operation; however, construction and operation of the project would not significantly increase the demand for fire protection services in the project area.

Though emergencies could occur within the vicinity of the project during construction and operation, the applicant has incorporated safety measures (e.g., those included in the PDFs listed above) into the design of the project. The applicant would also coordinate with local agencies in the event of an emergency. The project's safety features would reduce the demand for emergency services. Existing local fire protection

support services are adequate and available to respond to a fire or medical emergency should an onsite incident occur. Road closures may occur during project construction; however, emergency vehicles would be provided access (PDF TT-1 and PDF TT-3).

During operation of the project, the applicant would continue to implement measures to protect against fire and medical emergencies, including employing a maintenance crew to provide ongoing inspections. The maintenance crew would look for and address any safety, security, maintenance, and reliability issues along the project route. Decommissioning of the Canine Substation and emergency transformer bank at Auld Substation would not significantly increase the demand for fire protection services. Future expansion of the Triton Substation to 112 MVA would require a smaller construction crew and less equipment than the initial build-out to 56 MVA. Potential impacts on fire protection service from substation expansion would be even less than those associated with the initial build-out. Therefore, with implementation of the PDFs, the project would result in a less than significant impact under this criterion.

b. Police protection?

LESS THAN SIGNIFICANT IMPACT. Construction and operation of the project and decommissioning activities would not significantly increase the demand for police protection services in the project area. Police and law enforcement services would be required to service the project area during construction and operation. Though safety emergencies could occur within the vicinity of the project during construction and operation, the applicant would incorporate safety measures (e.g., PDF HAZ-4, PDF TT-1, PDF TT-3, and PDF TT-4) into the design of the project. The applicant would also coordinate with local agencies in the event of an emergency.

During operation of the project, the applicant would continue to implement measures to protect against vandalism and maintain the security of project facilities, including employing a maintenance crew to provide ongoing inspection of the facilities. Potential impacts from expansion of the Triton Substation would be less than those associated with the initial build-out. Therefore, with implementation of the PDFs, the project would result in a less than significant impact under this criterion.

c. Schools?

NO IMPACT. The Triton Substation site is located more than 0.5 miles from the nearest school. Construction of the substation, the distribution duct banks, the subtransmission line loop-in, and telecommunications lines would not result in any direct impacts on schools in the project area.

Construction of the project would require approximately 114 workers. Workers would also be required to decommission the Canine Substation and emergency transformer bank at Auld Substation. If the Triton Substation is later expanded to 112 MVA, workers would be required as well. The number of workers, however, would be considerably less than required for the initial build-out, including the Triton Substation, subtransmission line loop-in, and telecommunications lines. These temporary construction personnel would likely commute from within Riverside County or surrounding communities and would not create a permanent change in local population. During operation of the project, the Triton Substation would be remotely monitored and controlled, and limited project personnel would visit the substation periodically for maintenance purposes. There would be no impact on schools under this criterion because the project would not directly increase the demand for school services during or after project construction.

d. Parks?

NO IMPACT. Park facilities in the project area are described in the Recreation Section. The project would not directly increase the local population during or after construction, and no new or altered park or

recreational facilities would be required. Therefore, construction and operation of the project would result in no impact under this criterion.

e. Other public facilities?

NO IMPACT. The project would not directly increase the local population during or after construction and, therefore, would not affect the provision of other government services or public facilities such as libraries and hospitals.

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3.14 Recreation

Table 3.14-1 Recreation Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.14.1 Setting

There are a number of a number of recreational facilities located within 0.5 miles of the project. Veterans Park and several multi-use trails, bike paths, and bike lanes would be crossed by the route of the telecommunications lines to be installed as part of the project (City of Murrieta 1994; City of Temecula 1993; County of Riverside 2003). Veterans Park, in the City of Temecula, has a playground, picnic tables, a walking trail, and a large grassy area (City of Temecula 1993; Temecula Parks Link 2009).

Additionally, the telecommunications lines would be installed adjacent to Ronald Reagan Sports Park and several multi-use trails, bike paths, and bike lanes (City of Murrieta 1994; City of Temecula 1993; County of Riverside 2003). The Triton Substation, subtransmission line loop-in, and telecommunications lines would be installed on the south side of Nicolas Road. A multi-use trail runs along the north side of Nicolas Road (Figure 3.1-1). A bike lane also runs along Nicolas Road.

Project Design Features

The applicant has incorporated the following project design feature (PDF) into the project to minimize or avoid impacts on recreational resources. See Section 1.8.7 for a full list of all the PDFs the applicant has incorporated into the project to avoid or minimize impacts on all resources.

PDF REC-1: Public Notification

3.14.2 Environmental Impacts and Mitigation Measures

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

LESS THAN SIGNIFICANT IMPACT. Activities related to any aspect of project construction may result in the intermittent use of recreational facilities by project workers or personnel for breaks. Use would occur for short periods during the eight-month construction period. Use of Veterans Park by project workers is not anticipated to occur for longer than 40 days. Though use may temporarily increase, it is not anticipated to result in or accelerate substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. Therefore, construction of the project would result in a less than significant impact under this criterion.

Operation of the project would not increase or decrease the demand for and access to recreational resources. The substation would be an unattended facility and visited by personnel on an intermittent basis only. The subtransmission line loop-in and telecommunications lines would be visited only for maintenance. Operation of the project would not increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the parks or facilities would occur or be accelerated. Therefore, operation of the project would result in no impact under this criterion.

Implementation of the project would result in a less than significant impact on existing neighborhood and regional parks or other recreational facilities during construction and no impact during operation. Therefore, the project would result in a less than significant impact under this criterion.

b. Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

LESS THAN SIGNIFICANT IMPACT. The project would not include recreation facilities or require the construction or expansion of recreation facilities. Though existing facilities may be visited occasionally by project workers or personnel, the facilities can accommodate this use. In the event that short-term restrictions on recreational uses of segments of parks, multi-use tails, bike paths, or bike lanes are necessary during construction of the project, the applicant would notify the public in coordination with the appropriate jurisdiction (PDF REC-1). Therefore, the project would result in a less than significant impact under this criterion.

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3.15 Transportation and Traffic

Table 3.15-1 Transportation/Traffic Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b. Exceed, either individually or cumulatively, a level of service standard 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. Result in inadequate parking capacity?	☐	☐	☐	☒
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

3.15.1 Setting

The Triton Substation and subtransmission line loop-in would be located in a very low density residential area in the City of Temecula, California. The substation site is an approximately 10-acre property at the southeast corner of Nicolas Road and Calle Medusa. The Canine Substation, which would be decommissioned after constructing the Triton Substation, is located just south of Nicolas Road, approximately 350 feet west of the Triton Substation site. Construction of the subtransmission line loop-in would include the removal of existing wooden poles and installation of tubular steel poles along approximately 0.25 miles of Nicolas Road from the Triton Substation west to the existing Valley-Auld-Pauba 115 kV subtransmission line.

Access to work areas for the Triton Substation and subtransmission line loop-in would be provided via Interstate 15 (I-15) and I-215 freeways; Winchester Road (State Route 79); and the following collector and secondary roadways: Murrieta Hot Springs, Nicolas, and Calle Medusa. Table 3.15-2 provides roadway descriptions, traffic volume data, and existing levels of service (LOS) information for local and regional roadways that would be used during construction and operation of the project.

Table 3.15-2 Regional Roadway Characteristics

Highway/Roadway	Description	Jurisdiction	Average Daily Traffic Volume (vehicles/day)	Existing Level of Service (LOS)
Nicolas Road (State Route 79 to Joseph Road)	4-lane secondary	City of Temecula	18,000	Better than C
Nicolas Road (Joseph Road to Calle Girasol)	2-lane collector	City of Temecula	5,000	Better than C
Calle Medusa	2-lane collector	City of Temecula	3,800	Better than C
Murrieta Hot Springs Road	6-lane urban arterial	City of Murrieta	56,000	F
State Route 79 (Winchester Road)	6-lane urban arterial	City of Temecula	46,000	F
I-15	8-lane freeway	Caltrans, District 8	169,000 [a]	F
I-215	4-lane freeway	Caltrans, District 8	92,000 [b]	F

Sources: Caltrans 2007; City of Murrieta 2005; City of Temecula 2007

Notes:

[a] Measured at State Route 79 interchange

[b] Measured at State Route 79 and Murrieta Hot Springs Road interchange

The two telecommunications lines would be installed from Triton Substation along Nicolas Road to the existing subtransmission line. From there, one telecommunications line would extend north to Auld Substation. The second would extend south to Moraga Substation. In the following areas, four segments of the telecommunications lines would be placed underground instead of being underbuilt on overhead subtransmission-line infrastructure: along Nicolas Road; at the approaches to the Auld and Moraga Substations; and near Central Park Drive in Murrieta. One telecommunications line segment along Nicolas Road would be installed in new underground conduit, which would require trenching. The other three underground segments would be installed in existing conduit.

Access to work areas for the telecommunications lines would be provided via I-15, I-215, State Route 79, and local roads including, among others, Murrieta Hot Springs Road. Access to Auld Substation would be provided via State Route 79 and then smaller local roads. Access to Moraga Substation would be provided via I-15 and then smaller local roads. An emergency transformer bank at Auld Substation would be decommissioned and minor upgrades would be made to existing telecommunications equipment at Auld, Valley, Pauba, Moraga, Stadler, and Pechanga Substations.

The Circulation Element of the City of Temecula General Plan sets a goal of maintaining LOS D or better during peak hours and LOS C or better during non-peak hours (City of Temecula 2005a). Policies in support of this plan include use of the Circulation Element Roadway Plan, active monitoring, transportation demand management plans, and trip reduction incentives, particularly for development projects. For example, the City of Temecula Trip Reduction Ordinance requires development projects that employ more than 100 people to provide rideshare or carpool opportunities. As shown in Table 3.15-2, however, Murrieta Hot Springs Road, State Route 79, I-15, and I-215 currently operate at LOS F.

Roadways

Nicolas Road is an east-west four-lane collector from State Route 79 to Joseph Road (about 1.3 miles) and a two-lane collector from Joseph Road to Calle Girasol. Nicolas Road would connect the Triton

Substation site to State Route 79, located about 1.8 miles to the west. Nicolas Road traverses through residential areas in the vicinity of the project. It would serve as a local access route for project construction traffic (i.e., workers, trucks, and equipment) traveling to the substation site from State Route 79. Nicolas Road also provides a designated bike lane.

Calle Medusa is a north-south two-lane collector, immediately west of the substation site. Construction traffic would be limited to a less than 0.10 mile segment of Calle Medusa where it connects with Nicolas Road. Project workers and personnel would not use Calle Medusa south of the substation site where it traverses through residential areas. Calle Medusa also provides a multi-use trail for bike and pedestrian traffic.

Murrieta Hot Springs Road is an east-west four-lane divided arterial roadway that would serve as a local access route for project construction traffic traveling from I-215 to northern segments of the telecommunications line route. Murrieta Hot Springs Road also provides a designated bike lane.

State Route 79, also known as Winchester Road, is a north-south six-lane divided arterial roadway that would serve as an access route for the project. It would be used by project construction traffic to access Nicolas Road and the Triton Substation site from I-15.

I-15 is the fourth-longest north-south transcontinental interstate highway in the United States. I-15 is an eight-lane facility that would serve as a regional access route for project construction traffic traveling to the Triton Substation site.

I-215 is an alternate route to I-15 between Temecula and San Bernardino. It is a north-south freeway that merges with I-15 in Temecula. I-215 is a four-lane freeway that would serve as a regional access route for project construction traffic traveling to northern segments of the telecommunications line route.

Public Transportation

The Riverside Transit Agency provides bus service to the Cities of Temecula and Murrieta within the vicinity of the project. Key transit service routes serving the area are Riverside Transit Agency Routes 23 and 79. Route 23 travels from Temecula to Murrieta and uses State Route 79 and Murrieta Hot Springs Road in the project area. Route 79 travels through Hemet, Winchester, and Temecula using State Route 79.

The French Valley Airport, a general aviation airport owned and operated by Riverside County, is the airport closest to the project area. The Triton Substation site is located approximately 1.5 miles southeast of the airport. For a 12-month period ending March 31, 2006, the airport averaged 269 aircraft operations per day.

Traffic During Construction of the Project

Traffic increases due to construction of the project are estimated in Table 3.15-3. It is estimated that 114 workers will be required during the 8-month project construction period. The 114 workers would be comprised of 101 workers who would construct the Triton Substation and subtransmission loop-in and 13 workers who would construct the telecommunications lines.

Table 3.15-3 Distribution of Construction Worker Generated Traffic

Highway/Roadway	Average Daily Traffic Volume (vehicles/day)	Peak Construction Period		
		Projected Total Vehicle Trips/Day [c]	Percent Increase in Vehicle Trips/Day	Projected Level of Service (LOS)
Nicolas Road	18,000	222	1%	Better than C
Calle Medusa	3,800	222	5%	Better than C
State Route 79 (Winchester Road)	56,000	185	< 1%	F
Murrieta Hot Springs Road	56,000	123	< 1%	F
I-15	169,000 [a]	185	< 1%	F
I-215	92,000 [b]	123	< 1%	F

Sources: Caltrans 2007; City of Murrieta 2005; City of Temecula 2007

Notes:

[a] Measured at State Route 79 interchange

[b] Measured at State Route 79 and Murrieta Hot Springs Road interchange

[c] Assumes 101 workers and ten trucks would arrive/depart in the immediate vicinity of the Triton Substation and 13 workers and 30 trucks would arrive/depart along the telecommunications lines routes

It is estimated that 40 percent of construction traffic would arrive at the site from the north via I-215 and exit at Murrieta Hot Springs Road. The remaining 60 percent would arrive from the south and northwest via I-15 and exit at State Route 79. The City of Temecula's General Plan, Circulation Element, designates both State Route 79 and Murrieta Hot Springs Road as truck routes. Most construction work would begin at 6:00 AM and end at 3:00 PM.

During peak construction periods, traffic would increase on roadways in the vicinity of the Triton Substation and subtransmission line loop-in by no more than 1 percent except for the short section of Calle Medusa along the substation frontage where a 5 percent increase is estimated. The increase in traffic on Calle Medusa, however, would not cause the LOS to exceed LOS C. All roadways that were operating at LOS F prior to project construction would continue to operate at this level with a less than 1 percent increase in vehicle trips per day.

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on transportation resources or traffic. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF TT-1: Traffic Control Services

PDF TT-2: Incorporate Protective Measures

PDF TT-3: Traffic Management

PDF TT-4: Repair Damaged Streets

PDF HAZ-4: Traffic Control

3.15.2 Environmental Impacts and Mitigation Measures

a. Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

LESS THAN SIGNIFICANT IMPACT. During the 8-month construction period, traffic on roadways in the vicinity of the project would increase by 1 to 5 percent. The applicant has incorporated PDF TT-3 to help reduce impacts on roadways. Under PDF TT-3, project construction traffic would be scheduled for off-peak hours to the extent possible. Construction of the Triton Substation, subtransmission line loop-in, and telecommunications lines and decommissioning of the Canine Substation would not significantly impact levels of service to collector and secondary roadways. During operation of the project, the Triton Substation would be remotely monitored and controlled, but project personnel would visit the substation periodically for maintenance purposes. Future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would require substantially fewer workers than the initial build-out.

The applicant would use traffic control services during construction of the project (PDF HAZ-4 and PDF TT-1). To safely address traffic management, the applicant would follow best management practices outlined in the *Work Area Traffic Control Handbook (WATCH)* (PDF TT-3) and comply with the California Vehicle Code (BNi Building News 2009, DMV 2009). Under PDF HAZ-4, the applicant would consult with state and local agencies prior to the initiation of construction activities that may affect traffic, as applicable. Implementation of the PDFs would reduce potential impacts under this criterion to less than significant levels.

b. Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

LESS THAN SIGNIFICANT IMPACT. Though the estimated increase in traffic would not have a significant impact in terms of level of service, Murrieta Hot Springs Road, State Route 79, I-15, and I-215 are currently operating at a high level of service (LOS F). Construction of the Triton Substation, subtransmission line loop-in, and telecommunications lines and decommissioning of the Canine Substation would not significantly impact levels of service to collector and secondary roadways. In addition, since future expansion of the Triton Substation would require substantially fewer workers and construction equipment than the initial build-out, the expansion would not result in a significant impact on levels of service established for roads or highways in the project area.

The applicant has incorporated PDF TT-3 to help reduce impacts on roadways in the project area that operated at high levels of service. Under PDF TT-3, the applicant would follow guidelines outlined in the WATCH manual to help ensure that traffic is minimally impacted on all roadways accessed during construction of the project. PDF TT-3 would also reduce the potential for cumulative impacts because project construction traffic would be scheduled for off-peak hours to the extent possible. Therefore, impacts under this criterion would be less than significant.

c. Would the project 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?

NO IMPACT. The project would be constructed adjacent to and alongside existing subtransmission lines and, thus, would not constitute a new obstruction to navigable air space. Additionally, the project would be designed, engineered, and constructed to comply with the Riverside County Airport Land Use

Compatibility Plan (Riverside County 2004). Therefore, construction and operation of the project would result in no impact on air traffic patterns.

d. Would the project 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 project would not require modifications to existing roadways or the creation of new roadways. However, installation of the subtransmission line loop-in, including the replacement of the wooden poles with tubular steel poles, as well as the installation of the Triton Substation and telecommunications lines would require the use of construction equipment within or bordering existing roadways. The majority of construction activity that would take place on or border existing roadways would occur along approximately 0.25 miles of Nicolas Road, just west of the Triton Substation site. The subtransmission line loop-in and one underground telecommunications line segment would be installed in and along the southern side of Nicolas Road. Activity would also take place on or border roadways during the installation of other telecommunications line segments, especially those that cross roadways on existing overhead subtransmission-line infrastructure, although installation would be accomplished without lane closures in these areas. New excavation would not be required for telecommunications line segments to pass under roadways.

The presence of construction equipment and materials within or along roadways would create a hazard to passing vehicles and be seen as an incompatible use. These impacts would be reduced to a less than significant level by implementing PDF HAZ-4, PDF TT-1, PDF TT-2, PDF TT-3, and PDF TT-4. Therefore, impacts under this criterion would be less than significant.

e. Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT. When construction equipment is used within existing roadways, the applicant would follow guidelines outlined in the WATCH manual to ensure that adequate emergency access is maintained at all times (PDF HAZ-4, PDF TT-1, and PDF TT-3). Under PDF HAZ-4, the applicant would consult with state and local agencies prior to the initiation of construction activities that may affect traffic. Damage to local streets would be repaired to pre-project condition (PDF TT-4).

The majority of construction activity that would take place on or border existing roadways would occur along Nicolas Road, just west of the Triton Substation site. In this location, the subtransmission line loop-in and one underground telecommunications line segment would be installed. Nicolas Road, however, is rated better than LOS C (Table 3.15-2), and the surrounding area is relatively undeveloped, lightly developed, or classified as low-density residential (City of Temecula 2005b). Therefore, with implementation of the PDFs, the project would result in a less than significant impact under this criterion.

f. Would the project result in inadequate parking capacity?

NO IMPACT. Construction and operation of the project would not require off-site parking. Construction workers would park in designated areas at the Triton Substation site. Parking at the Triton Substation site would also accommodate workers for subtransmission line loop-in construction. Only 13 workers are estimated to be necessary for installation of the telecommunications lines. During operation of the project, personnel would park at the Triton Substation site or as needed along the telecommunications lines routes. Therefore, construction and operation of the project would not impact parking resources.

g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

LESS THAN SIGNIFICANT IMPACT. Bike lanes adjacent to the substation site would be impacted temporarily during construction of the project. Under LU-1, the public would be notified about planned work activities that could disrupt transportation routes. Under PDF TT-3, the applicant would follow guidelines outlined in the WATCH manual to ensure best traffic management practices during construction. The traffic management practices would also include procedures for safe ingress and egress for cyclists and pedestrians. Signage would be used to alert roadway users (PDF HAZ-4, PDF TT-1, and PDF TT-3). Additionally, construction traffic would be scheduled for off-peak hours (PDF TT-3), and the applicant would consult with state and local agencies, as applicable, prior to the initiation of construction activities that may affect traffic (PDF HAZ-4). Implementation of the PDFs would ensure that alternative transportation routes are preserved during construction of the project. Therefore, the project would result in a less than significant impact under this criterion.

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3.16 Utilities and Service Systems

Table 3.16-1 Utilities and Service Systems Checklist

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b.	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?	☐	☐	☒	☐
c.	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?	☐	☐	☒	☐
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

3.16.1 Setting

The project would be part of the applicant's existing electrical system that serves southwestern Riverside County. The Triton Substation site, distribution duct banks, and subtransmission line loop-in would be located within the City of Temecula. The telecommunications lines would be located within the Cities of Temecula and Murrieta and unincorporated areas of Riverside County.

Water is provided to the majority of the project area by the Rancho California Water District, and wastewater services are primarily provided by the Eastern Municipal Water District. Wastewater in the vicinity of the Triton Substation is routed through an existing sewer system. Storm water flows are conveyed by systems under the jurisdiction of the Riverside County Flood Control and Water Conservation District. Stormwater flow from the project area to Santa Gertrudis Creek or Santa Margarita River would not exceed the capacity of the existing storm drainage system, and no new facilities would be required.

Table 3.16-2 identifies jurisdictions that would be crossed by project facilities and the utility providers within each jurisdiction. Where necessary, SCE would obtain encroachment permits for project work that might take place in a public right-of-way (ROW).

Table 3.16-2 Utilities and Service Systems Summary by Jurisdiction

Utilities	County of Riverside	City of Temecula	City of Murrieta
Electrical Service Distribution	Southern California Edison	Southern California Edison	Southern California Edison
Water	Rancho California Water District; Eastern Municipal Water District; Western Municipal Water District	Rancho California Water District; Eastern Municipal Water District; Western Municipal Water District	Rancho California Water District; Eastern Municipal Water District; Western Municipal Water District
Wastewater	Rancho California Water District; Eastern Municipal Water District; Septic Systems	Rancho California Water District; Eastern Municipal Water District	Rancho California Water District; Eastern Municipal Water District
Solid Waste Disposal	Riverside County Waste Management Department/ Waste Management, Inc.	City of Temecula Public Works Department/CR&R Inc.	City of Murrieta Public Works Department/Waste Management, Inc.
Storm Water Drainage	Riverside County Flood Control and Water Conservation District/San Diego Regional Water Quality Control Board (1)	Riverside County Flood Control and Water Conservation District/San Diego Regional Water Quality Control Board	Riverside County Flood Control and Water Conservation District/San Diego Regional Water Quality Control Board
Natural Gas	Southern California Gas Company	Southern California Gas Company	Southern California Gas Company
Landfill	Badlands Landfill, Moreno Valley; El Sobrante Landfill, Corona	El Sobrante Landfill, Corona; Badlands Landfill, Moreno Valley	El Sobrante Landfill, Corona; Badlands Landfill, Moreno Valley; Lamb Canyon Landfill, Beaumont

Source: City of Murrieta 1994, 2009a, 2009b, 2009c; City of Temecula 2005, 2009a, 2009b, 2009c; CIWMB 2009; EMWD 2000; RCTLMA 2003a; RCTLMA 2003b; RCWMD 2009; RCWD 2009; WMWD 2009

Solid waste is collected within the City of Temecula by CR&R Disposal. In Riverside County and the City of Murrieta, solid waste is collected by Waste Management, Inc. Solid waste generated in Temecula, Murrieta, and Riverside County is hauled to one of several landfills (Table 3.16-3).

Table 3.16-3 Landfills Serving the Project Area

Landfill	Maximum Permitted Capacity (Cubic Yards)	Remaining Capacity / Date
El Sobrante Landfill	184,930,000	118,573,540 Tons / April 30, 2007
Frank R. Bowerman Sanitary Landfill	127,000,000	59,411,872 Cubic Yards / December 1, 2006
Puente Hills Landfill	106,400,000	49,348,500 Cubic Yards / October 14, 2006
Olinda Alpha Sanitary Landfill	74,900,000	38,578,383 Cubic Yards / October 1, 2005
Lamb Canyon Sanitary Landfill	34,292,000	20,908,171 Cubic Yards / July 31, 2005
Badlands Sanitary Landfill	30,386,332	21,866,092 Cubic Yards / May 21, 2005
Colton Sanitary Landfill	13,297,000	610,000 Cubic Yards/Day / November 1, 2005
Oasis	870,000	75,727 Cubic Yards / January 7, 1998
Mecca II	372,480	34,786 Cubic Yards / July 31, 2006
Desert Center	117,032	23,246 Cubic Yards / July 31, 2006

Source: CIWMB 2009

Under the California Integrated Waste Management Act of 1989 (Assembly Bill 939), each city and county in California must prepare, adopt, and implement a Source Reduction and Recycling Element. The purpose of the Source Reduction and Recycling Element is to identify how the jurisdiction would divert through source reduction, recycling, and composting, 25 percent of its solid waste from landfill or incinerator disposal by 1995 and 50 percent by the year 2000.

The Riverside County Waste Management Department reports that in 2008, the County was diverting approximately 53 percent of its solid waste from landfill disposal (RCWMD 2009). The City of Temecula Department of Public Works reports that in 2006, the county was diverting more than 57 percent of its solid waste from landfill disposal (CIWMB 2006). The City of Murrieta Department of Public Works reports that in 2006, the County was diverting approximately 49 percent of its solid waste from landfill disposal and was found to be in compliance with state requirements having made a "good faith" effort to meet the 50 percent requirement (CIWMB 2006; City of Murrieta 2009).

Project Design Features

The applicant has incorporated the following project design features (PDFs) into the project to minimize or avoid impacts on utilities. See Section 1.8.7 for a full description of each PDF that the applicant has incorporated into the project to avoid or minimize impacts on all resource areas.

PDF UTIL-1: Notice of Termination

PDF UTIL-2: Recycle Waste Materials

PDF AES-6: Substation Landscaping

PDF HAZ-2: Wood Pole Removal

PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit

3.16.2 Environmental Impacts and Mitigation Measures

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

LESS THAN SIGNIFICANT IMPACT. Project construction activities would generate wastewater in the short term, during the 8-month construction period. No changes to wastewater treatment facilities would be required because construction crews would use portable toilets and only a small amount of wastewater, which would be pumped by qualified contractors and disposed of in accordance with applicable regulations and codes. Other construction-related water use would be minimal and limited to dust-control activities, fire protection, and crewmember drinking water consumption.

During operation of the project, the applicant's personnel would make occasional visits to the Triton Substation site, and would use the on-site sanitary facility, which would be connected to the existing City of Temecula sewer system adjacent to the Triton Substation property. Minor amounts of wastewater generated at the Triton Substation site during project operation would be conveyed and treated in accordance with the requirements of the applicable oversight agencies, including the San Diego Regional Water Quality Control Board. Operation and maintenance of the subtransmission line loop-in and the telecommunications lines would not otherwise require water use.

The project would not exceed wastewater treatment requirements established by the San Diego Regional Water Quality Control Board. Future expansion of the Triton Substation from the initial build-out of 56 MVA to 112 MVA would not result in any new wastewater treatment requirements. Therefore, impacts from construction and operation of the project under this criterion would be less than significant.

b. Would the project 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?

LESS THAN SIGNIFICANT IMPACT. The initial build-out and future expansion of the project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Construction for the initial build-out would be 8 months. Water trucked in from an outside source during construction for dust suppression, fire protection, drinking water, and portable toilets on the construction site. Generation of wastewater during construction would be minimal and temporary. Portable toilets would be used and maintained during construction and removed after the completion of construction. No significant impacts on local sewer systems would result from project construction and no new or expanded water or wastewater treatment facilities would be required.

The Triton Substation would be unattended and operated remotely. It would not require the construction or expansion of water or wastewater treatment facilities. Water use during operation would be from the sanitary facility at the Triton Substation as well as landscaping irrigation. The sanitary facility would be connected to the existing City of Temecula sewer system adjacent to the Triton Substation property, consume a minimal amount of water, and not exceed the capacity of existing water treatment facilities. Landscaping at the Triton Substation site would be planted in accordance with a landscaping and irrigation plan approved by the City of Temecula and incorporate the use of drought-tolerant native plants to conserve water (PDF AES-6). The landscaping and irrigation plan would be designed to capture storm water runoff, and site plantings would therefore require minimal supplemental irrigation. Therefore, impacts from construction and operation of the project under this criterion would be less than significant.

c. Would the project 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?

LESS THAN SIGNIFICANT IMPACT. The initial build-out and future expansion of the project would not result in a need for new storm water drainage facilities nor substantially alter existing facilities. Construction of the project would result in the creation of impervious surface at the Triton Substation as a result of the installation of the driveway and substation facilities. The applicant, however, would apply for a Construction Activities Storm Water General Permit (Order 99-08-DWQ) and prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) (PDF HYDRO-1). The applicant would submit a Notice of Termination after reaching stabilization of the project area per Order 99-08-DWQ (PDF UTIL-1). Storm water flow from the project area to Santa Gertrudis Creek or Santa Margarita River would not exceed the capacity of the existing storm drainage system, and no new facilities would be required. Therefore, impacts from project construction and operation would be less than significant under this criterion.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

LESS THAN SIGNIFICANT IMPACT. Water supply for Southern California and Riverside County, including water districts serving the project area, is increasingly uncertain due to ongoing drought conditions and reductions in the availability of imported water (RCTLMA 2003b). During the 8-month project construction period, water would be used for dust suppression, fire protection, drinking water, and portable toilets on the construction site. All water used would be trucked in from an outside source in the project vicinity. Project operation would include the use of water in the sanitary facility on the Triton Substation site and for landscaping irrigation. Water requirements during construction for Triton Substation expansion activities would be less than those associated with the initial build-out, and the

expansion would result in no change on operation water requirements. Therefore, impacts from project construction and operation would be less than significant under this criterion.

e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

LESS THAN SIGNIFICANT IMPACT. During the temporary, 8-month project construction period for the initial build-out, wastewater would be generated and disposed of in portable toilets. Other water use during project construction would be limited to dust control activities, fire protection, and crewmember drinking water consumption. Wastewater generated during construction for the substation expansion would be less than for the initial build-out. The project would also generate intermittent, small volumes of wastewater during project operation through the use of the sanitary facility on the Triton Substation site. Water district review and approval would be required for connection of the sanitary facility to the wastewater system. Wastewater disposal would not exceed the existing capacity of wastewater treatment providers. Therefore, impacts from project construction and operation would be less than significant under this criterion.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

LESS THAN SIGNIFICANT IMPACT. Project construction during the initial build-out and future expansion would be served by one or more landfills in the area, all of which have sufficient permitted capacity to accommodate the project's solid waste disposal needs. Project activities that would generate solid waste include Triton Substation construction, removal of existing wooden poles, installation of tubular steel poles, installation of the telecommunications lines, and decommissioning of the Canine Substation.

The solid waste material would include vegetation, rock, scrap wood and metal, materials removed from the existing subtransmission lines and poles, approximately 800 cubic yards of excavated soil, and other construction debris. Construction and demolition waste materials would be recycled to the maximum extent practical. The wooden poles would be reused by the applicant, returned to the manufacturer, recycled, or disposed of in a licensed Class I hazardous waste landfill (PDF HAZ-2). Under PDF UTIL-2, materials generated by removal of the existing lines and poles would be processed into roll-off boxes and sent to a commercial metal-recycling facility in Los Angeles where recyclable or salvageable items (e.g., conductor, steel, and hardware) would be received, sorted, baled, and sold on the open market.

Solid waste generated during project operation would be limited to vegetation materials cleared during routine maintenance, and some domestic trash, which would be removed by applicant personnel and taken offsite for disposal. Capacity levels of existing landfills would be sufficient for the continuation of operations and maintenance activities. Project construction and operation disposal activities would have a minimal impact on the capacity of existing landfills and would not require the development of new or expanded landfills. As a result, impacts would be less than significant under this criterion.

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

NO IMPACT. The project would comply with the California Integrated Waste Management Act of 1989 (AB 939), which requires each city and county in California to prepare, adopt, and implement a Source Reduction and Recycling Element and to divert 25 percent of its solid waste from landfill or incinerator

disposal by 1995 and 50 percent by the year 2000. Riverside County and the Cities of Temecula and Murrieta are in compliance with the mandated diversion rates.

The project would generate solid waste during the construction period and very small volumes of solid waste during the operation period. Non-hazardous construction materials that could not be reused or recycled likely would be acceptable for disposal at area landfills. Any hazardous materials and wastes would be recycled, treated, and disposed of in accordance with federal, state, and local laws. During project construction and operation, the applicant would dispose of all waste in accordance with published federal, state, or local standards relating to solid waste; therefore, no impact would occur under this criterion.

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3.17 Mandatory Findings of Significance

Table 3.17-1 Mandatory Findings of Significance Criteria

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Does the project have 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.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.17.1 Environmental Impacts and Mitigation Measures

a. Does the project have 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?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. A number of sensitive and special status wildlife and plant species have been identified that may be impacted by construction of the project (Section 3.4, Biological Resources). The applicant would implement project design feature (PDF) BIO-1 through PDF BIO-10 and other PDFs listed in Table 5-1 to minimize impacts on the environment, including fish and wildlife and their habitat. Even with implementation of the PDFs, there still would be potentially significant impacts on fish and wildlife and their habitat.

These potential impacts would be reduced to less than significant levels with implementation of the mitigation measures (MMs) included in Section 3.4, which would require the applicant to limit the removal of native vegetation communities (MM BIO-1); implement best management practices to protect biological resources (MM BIO-2); survey for special status plants in the appropriate blooming period prior to constructing the project and avoid areas where special status plants are found (MM BIO-3); survey for special-status wildlife prior to constructing the project and avoid areas where special-status wildlife is found (MM BIO-4); implement measures to protect the Quino checkerspot butterfly and burrowing owl (MM BIO-5 and MM BIO-6); prevent the entrapment of wildlife, e.g., in open trenches (MM BIO-7); and ensure that construction work does not take place in the bed, banks, and riparian zones of drainages (MM BIO-8). Under MM BIO-3 and MM BIO-4, if the applicant cannot avoid construction

activities in areas where special status plants or wildlife are present, then the applicant will become a Participating Special Entity (PSE) in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). As a PSE, the applicant will follow the provisions set forth in the MSHCP, including consultation with the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game, and the Western Riverside County Regional Conservation Authority.

With the implementation of these and the other mitigation measures discussed in Chapter 3 and listed in Table 5-1, potential impacts on fish and wildlife and their habitat would be reduced to less than significant levels.

Cultural and Paleontological Resources

The project route would cross several culturally and paleontologically sensitive areas. The applicant would implement PDF CUL-1 through PDF CUL-5 to minimize impacts on cultural and paleontological resources. Even with implementation of the PDFs, there still would be potentially significant impacts.

These potential impacts would be reduced to less than significant levels with implementation of the mitigation measures included in Section 3.5, which would require the applicant to plan for the unanticipated discovery of cultural and paleontological resources. The archaeological and paleontological monitors would have the authority to stop all construction activities in the event of an unanticipated discovery of cultural or paleontological resources (MM CUL-1). Under MM CUL-1, construction would not resume until an appropriate evaluation could take place. With the implementation of MM CUL-1, potential impacts on cultural and paleontological resources would be reduced to less than significant levels.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The cumulative analysis is based on a list of past, present, and probable future projects in the vicinity of the project area. The cumulative list was compiled using data published by Riverside County, the cities of Temecula and Murrieta, the California Office of Planning and Research (OPR), and the U.S. Environmental Protection Agency (EPA). The cities of Temecula and Murrieta and Riverside County were also consulted. The projects considered in the cumulative analysis include those that would be constructed concurrently with the project and those that would be in operation at the same time as the project. The projects included had applications on file at Riverside County or the cities of Temecula and Murrieta and/or had filed a Notice of Preparation (NOP) with the California Office of Planning and Research (OPR) or recently submitted an EIS to the EPA at the time this list was compiled. See Table 3.17-2 through Table 3.17-7.

The geographic scope of the cumulative project list was limited to southwest Riverside County. These projects, which would result in similar impacts to the Triton Substation project, were included in this analysis due to their potential to collectively contribute to significant cumulative impacts. Because the majority of the impacts associated would be localized, using the entirety of southwestern Riverside County as the geographic scope of the analysis is a conservative approach. Additionally, this analysis considers projects that may not be constructed for some time after the Triton Substation project would be constructed and projects that may be constructed some time before the Triton Substation project would be constructed despite the fact that the majority of project impacts would be related to construction and of a short duration. This approach ensures a comprehensive and thorough analysis that depicts the worst case scenario for cumulative impacts.

Tables 3.17-2 through 3.17-7 list projects in the vicinity of the Triton Substation property, the existing Canine Substation, the 115 kV subtransmission loop-in, and the routes for the telecommunications lines to the Auld and Moraga Substations that are considered in the cumulative analysis. Recent, planned and probable development in the area is described briefly below.

Southwestern Riverside County

From 2007 to present, nine Final Environmental Impacts Statements (EIS), Draft EISs, and Supplemental EISs were completed for projects within southwest Riverside County (Table 3.17-2). These include primarily applications for take permits through the USFWS and applications for Section 404 permits with the U.S. Army Corps of Engineers. None of these projects would be located in the cities of Murrieta or Temecula.

From 2007 to present, 27 NOPs were filed with the OPR for projects in southwest Riverside County (Table 3.17-3). These include applications for commercial, residential and industrial development. Nine of these applications are for projects that would be located within the cities of Murrieta and Temecula. Riverside County has eleven projects with applications on file that would be located within southwest Riverside County (Table 3.17-4). These projects include commercial, residential, and industrial development, and date back to 2002. Three of these projects – a compost center, a mobile home subdivision, and a public cemetery – would be located in the cities of Murrieta and Temecula. County planners noted that the Rancho Bella Vista development, near the Triton Substation, is nearly built out (Rush 2009).

The project would be located near the Temecula Wine Country. The cumulative impact analysis considers 42 wineries in the project vicinity that Riverside County has identified as existing, approved, or proposed (Table 3.17-5). A table showing the full list of projects is included at the end of this chapter. These wineries comprise approximately 920 acres in the project vicinity. The wineries are agricultural facilities with the capacity to produce wine. Most also provide public access with facilities for daily tasting and have the capacity to host special events. Facilities provided for the 42 wineries total approximately 640,000 square foot.

City of Temecula Projects

The City of Temecula has identified current planning projects that may have impacts similar to those of the Triton Substation project; Table 3.17-6 lists all projects being considered for approval by the City of Temecula that are considered in the cumulative impact analysis. Proposed projects in the City of Temecula include roughly 1,725 residential units, including single-family homes, multi-family complexes, condominiums, and apartments and more than 2.1 million square feet of commercial and industrial space.

Discussions with planners at the City of Temecula revealed that the Roripaugh Ranch residential development has been indefinitely abandoned. City planners noted that the nearest planned development would be the modification to the Grace Presbyterian Church at the southwest corner of Calle Medusa and Nicolas Road (Peters 2009). The Grace Presbyterian Church application is for construction of a 6476 square foot worship center attached to the existing sanctuary.

City of Murrieta Projects

The City of Murrieta has identified current planning projects that may have impacts similar to those of the Triton Substation project; Table 3.17-7 lists all projects being considered for approval by the City of

Murrieta (Watts 2009). Projects include approximately 6,710 residential units, apartments or condominiums and more than 3.4 million square feet of commercial and industrial space.

Southern California Edison Projects

The applicant has identified several transmission-related projects that would be developed in the same general timeframe as the project within the project vicinity. In 2009, the applicant plans to reconductor three transmission lines: the Valley-Auld transmission line, the Valley-Elsinore-Ivyglen transmission line, and the Valley-Auld-Pauba transmission line. In 2010, the applicant plans to reconductor the Valley-Newcomb-Skylark transmission line and construct the Valley-Ivyglen 115 kV source line and the Valley-Pauba 115 kV source line. The applicant plans to construct the Fogarty 115/12 kV Substation and the Tenaja 115/12 kV Substation, and in 2012, the applicant plans to construct the Lakeview 115/12 kV Substation and the Alberhill 500/12 kV Substation. The dates for these projects may be subject to change.

In addition to impacts associated with reconductoring and the construction of new transmission lines and substations, the applicant will continue to inspect, maintain, and repair numerous existing transmission lines in the project area.

Potential Cumulative Impacts

The project involves the construction of the Triton Substation, a 115 kV subtransmission line loop-in, installation of telecommunications lines (primarily underbuilt on existing structures) to the existing Auld and Moraga Substation, decommissioning of the Canine Substation, and the potential for future expansion to a 112 MVA substation. With implementation of mitigation measures, the incremental effects of these actions are less than significant when considered in conjunction with other past, current, and probable projects, as described below by resource area. In accordance with CEQA Guidelines 15130(b), the discussion of cumulative impacts describes the likelihood and severity of impacts associated with the projects identified in Tables 3.17-2 through 3.17-7, and in accordance with CEQA Guidelines 15130(a), determines whether the project's incremental effect is cumulatively considerable when considered in conjunction with past, planned, and probable projects.

Aesthetics

LESS THAN SIGNIFICANT IMPACT. There are a large number of recent, planned, or proposed projects within the project vicinity that have the potential to change the visual character or quality of the area, which has been designated a Rural Preservation Area by the City of Temecula. Many of these projects, including the church complexes immediately west of the project site and numerous subdivisions, can be characterized as more suburban than rural in appearance. The structures are similar in appearance and color, and surrounded by manicured landscaping and sidewalks. Construction on the Roripaugh Ranch project, a proposed subdivision 0.5 miles north and 0.75 miles west of the project site, was stopped indefinitely after grading on the site had been completed.

Additionally, the project would be located in the vicinity of an expanding wine region. As seen in Table 3.17-5, there are 22 existing wineries in Temecula Wine Country, with an additional six approved and 15 pending approval. The proliferation of wineries in the area would increase the density of development, altering the visual character.

When considered in the context of numerous recent, planned and probable projects in the vicinity of the project area, the aesthetic impact of the project would be comparatively negligible. The project would be located primarily on an approximately 10-acre site and would be screened by vegetation and designed to be consistent with community standards. Because the visual impact of the project would be minor in comparison to large-scale development in the project area and due to the implementation of measures to

ensure that the project is visually consistent with surrounding development, the aesthetic impact of the project would not be cumulatively considerable; therefore, the project would result in a less than significant cumulative impact on aesthetics.

Agricultural Resources

NO IMPACT. Development of the cumulative projects identified in southwest Riverside County, the City of Temecula, and the City of Murrieta would potentially result in the conversion of agricultural land, including Prime Farmland, Farmland of Statewide Importance, and Unique Farmland (Farmland) or Williamson Act land, to non-agricultural uses. These projects may also result in the conversion or rezoning of forested land to non-forest use. The Triton Substation project would not result in the conversion of Farmland, Williamson Act land, or forested land, and would not require rezoning to non-agriculture or non-forest use. Therefore, the project would not result in cumulatively considerable impacts on agricultural resources.

Air Quality and Greenhouse Gases

LESS THAN SIGNIFICANT IMPACT. Development of the cumulative projects identified in southwest Riverside County, City of Temecula, and City of Murrieta would potentially result in air quality violations, including emissions of non-attainment criteria pollutants and may create objectionable odors or expose sensitive receptors to pollutants. Construction and operation of the projects identified in Table 3.17-2 through Table 3.17-7 would result in increased emissions of sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter with diameters less than or equal to 10 microns (PM_{10}), particulate matter with diameters less than or equal to 2.5 microns ($PM_{2.5}$), carbon monoxide (CO), ozone (O_3), and lead (Pb).

The project is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As discussed in Chapter 3.3 Air Quality, the project's construction and operations emissions of the non-attainment pollutants (PM_{10}, $PM_{2.5}$, and ozone precursors [NO_X and VOCs]) would be less than the SCAQMD significance thresholds for construction. According to the SCAQMD white paper "Potential Control Strategies to Address Cumulative Impacts from Air Pollution," Appendix D Cumulative Impact Analysis Requirements Pursuant to CEQA (SCAQMD 2003), projects that do not exceed the significance thresholds are generally not considered to be cumulatively significant. Therefore, the cumulative impact from implementation of the project would be less than significant, and the project would not contribute to cumulatively considerable impacts on air quality in conjunction with identified past, planned, and probable projects.

Development of the cumulative projects identified in southwest Riverside County, City of Temecula, and City of Murrieta would potentially result in greenhouse gas (GHG) emissions that have a significant impact on the environment or conflict with any adopted plans, policies or regulations. The projects listed in Tables 3.17-2 through 3.17-7 would all be located within the SCAQMD. Construction and operation of these projects would result in GHG emissions, such as CO_2 and CH_4 emissions associated with fuel combustion. Additionally, the electric transmission and substation projects described above that the applicant is planning in the project area may result in unintentional leakage of $SF_{6.}$

SCAQMD developed interim significance thresholds to regulate greenhouse gas emissions on a regional level and ensure regional compliance with the statewide goal of reducing emissions to 1990 levels by the year 2020. The total yearly project GHG emissions would be 67 metric tons carbon dioxide equivalence ($MTCO_2e$) per year, with 19 $MTCO_2e$ per year from construction (amortized over 30 years), 15 $MTCO_2e$ per year from operations due to routine inspections, and 33 $MTCO_2e$ per year from operations due to potential fugitive SF_6 emissions. This estimate is less than one percent of the interim threshold of 10,000 $MTCO_2e$ per year as established by the SCAQMD. Therefore the project complies with the most

applicable greenhouse gas standard and would not conflict with any statewide goals to reduce greenhouse gases, and would not be cumulatively considerable.

Considered on a national or global level, the greenhouse gas emissions generated by the project are significantly lower than larger sources of greenhouse gas emissions such as generation facilities or fuel combustion associated with daily automobile usage or other sources of transportation. Considered in this broader context, greenhouse gas emissions resulting from the construction and operation of the project, impacts related to the release of greenhouse gases are not considered cumulatively considerable.

Biological Resources

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Growth and development within unincorporated Riverside County and the cities of Temecula and Murrieta and in the vicinity of the project have the potential to result in the loss of sensitive biological resources. Individual jurisdictions have policies to provide guidance regarding the protection of biologically sensitive areas. The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional plan that focuses on conservation of species and their associated habitats in western Riverside County. The projects considered in the cumulative analysis would be required to be in compliance with all applicable plans, policies, and regulations that protect biological resources, including the Western Riverside County MSHCP.

A number of special status species have the potential to occur in the project area. These include the Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), plummer's mariposa lily (*Calochortus plummerae*), intermediate mariposa lily (*Calochortus weedii*), long-spined spineflower (*Chorizanthe polygonoides*), round-leaved filaree (*Erodium macrophyllum*), white-tailed kite (*Elanus leucurus*), western burrowing owl (*Athene cunicularia*), California gnatcatcher (*Polioptila californica*), loggerhead shrike (*Lanius ludovicianus*), orange-throated whiptail (*Aspoidoscelis hyperythra*), spotted bat (*Euderma maculatum*), northern red-diamond rattlesnake (*Crotalus exsul*), and Quino checkerspot butterfly (*Euphydryas editha quino*). Three of these species are considered Narrow Endemic Plant Species under the Western Riverside County MSHCP: Munz's onion, San Diego ambrosia, and round-leaved filaree. Development in the area, particularly in rural areas or areas devoted to open space and agriculture, would likely contribute to a loss of suitable habitat for these special status species and could result in take of the species. To obtain take authorization for special status species, the project proponents would be required to participate in the Western Riverside County MSHCP.

The project is located within the Southwest Area Plan of the Western Riverside County MSHCP. According to the plan, the majority of the Southwest planning area is devoted to open space, agricultural, and rural; while a specific small percentage of the land has been set aside for urban use, specifically in areas of the Cities of Temecula and Murrieta and in French Valley.

There is potentially suitable habitat for the western burrowing owl on a portion of the 10-acre substation property. There is also potential foraging habitat for the loggerhead shrike and the spotted bat on the substation property. The subtransmission line loop-in route has potentially suitable habitat for western burrowing owl, nesting raptors (including the white-tailed kite), San Diego ambrosia, and the Quino checkerspot butterfly as well as potential foraging habitat for the spotted bat. The telecommunications lines would traverse potentially suitable habitat for the western burrowing owl, nesting raptors (including the white-tailed kite), California gnatcatcher, orange-throated whiptail, Munz's onion, plummer's mariposa lily, San Diego ambrosia, northern red-diamond rattlesnake, and the Quino checkerspot butterfly. There is also potential foraging habitat for the spotted bat along the telecommunications routes. Additionally, the telecommunications line proceeding north to the Auld Substation would cross a portion of San Diego ambrosia proposed critical habitat. The long-spined spine flower and round-leaved filaree

have past occurrences noted within various portions of the right-of-way. The Canine Substation is located on developed land that is not considered potentially suitable habitat for any special status species; similarly, any upgrades that would occur within existing substations would not affect potential habitat for any special status species.

Both construction and operation of the project have the potential to result in a loss of biologically sensitive resources, either by damaging suitable habitat or through direct take of special status species. In general, limiting removal of native vegetation (MM BIO-1) and implementation of Best Management Practices (MM BIO-2 would reduce impacts on sensitive biological resources.

Additionally, for any area where ground disturbance would occur, the applicant would perform pre-construction protocol-level botanical surveys within areas that contain habitat suitable to support special status plant species during the blooming season. Habitat suitability would be determined via desktop level soil surveys. If these preconstruction surveys determine that special status plants are present in areas that would be disturbed by construction, impacts on these plants would be lessened through flagging and avoidance, particularly in areas where the telecommunications lines would be installed underground and would require trenching. Implementation of MM BIO-3 would require the applicant to become a Participating Special Entity (PSE) in the Western Riverside County MSHCP if special status plants could not be avoided.

Similarly, for special status wildlife species, the applicant would implement measures such as seasonal construction restrictions, passive relocation of the animal from the disturbance area, and adjusting project footprint to avoid impacts resulting from construction activities. In circumstances where these measures are not feasible, protocol-level surveys conducted prior to construction would determine presence or absence of special status wildlife species where suitable habitat occurs or is potentially present; in these areas a biological monitor would institute avoidance and construction activity monitoring. Surveys would also determine suitable habitat for the Quino checkerspot butterfly. If habitat is determined on site, flagging and avoidance of these areas would minimize impacts on the Quino checkerspot butterfly (MM BIO-5). In all areas where special status wildlife have the potential to occur or are present, covering open trenches or excavated areas and maintaining fencing around the perimeter of trenched areas would prevent the entrapment of wildlife (MM BIO-5). Implementation of MM BIO-4 would require the applicant to become a PSE in the Western Riverside County MSHCP if special status wildlife could not be avoided.

In areas where there is suitable habitat for burrowing owls, the applicant would conduct preconstruction surveys and have a biological monitor on site to prevent impacts on burrowing owls. Implementation of MM BIO-6 would require the applicant to develop and implement a Burrowing Owl Compensation Plan in consultation with the CDFG and USFWS consistent with the *California Burrowing Owl Consortium*, which would at a minimum create an artificial burrow for every burrow that is destroyed (collapsed when unoccupied).

The area that would be disturbed by project construction and operation is located on land that the Western Riverside County MSHCP designates as urban use. These urban areas are typically areas that have already been developed or encroached upon and are set aside for future growth and development; other, larger areas of land with suitable habitat to sustain special status species covered by the plan are designated open space, agricultural, and rural to conserve the suitable habitat.

In instances where avoidance is unfeasible, alternate measures including developing compensation plans, transplantation, reseeding and/or becoming a PSE in the Western Riverside County MSHCP would lessen impacts. With these measures and given the project's location in an area designated urban by the Western Riverside County MSHCP , the project would not result in significant impacts on common and special

status species or plants and would not contribute to a significant loss of biologically-sensitive areas. Should there be potential for loss of suitable habitat for special status species, MM BIO-3 and MM BIO-4 would require the applicant to become a PSE in the Western Riverside County MSHCP, and therefore impacts on biological resources would not be cumulatively considerable.

Cultural and Paleontological Resources

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Cultural and paleontological resource-related impacts tend to be primarily site-specific and do not typically result in regional or cumulative impacts. If a project site contains cultural and/or paleontological resources, avoidance or preservation procedures are implemented to mitigate potential impacts. Plans for reducing impacts on cultural and paleontological resources are developed for each project prior to construction. If appropriate mitigation is employed for the cumulative projects, as is standard, no significant impacts would be anticipated to result from implementation of identified past, planned, and probable projects in the project vicinity.

As outlined in Chapter 3.5, Cultural Resources, the project would result in less than significant impacts with mitigation. Mitigation to reduce potential impacts on cultural and/or paleontological resources includes defined procedures and roles for handling any unanticipated discoveries during construction. Because the project would require established plans and procedures for avoiding or reducing impacts on cultural and/or paleontological resources and because it can be reasonably assumed that other projects in the area will have similarly established plans and procedures, the project would not contribute to cumulatively considerable impacts on cultural or paleontological resources in conjunction with identified past, planned, and probable projects.

Geology and Soils

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Geology and soils-related impacts, including fault rupture, strong seismic ground shaking, seismic-related ground failure, and unstable soils are primarily site-specific and do not typically result in regional or cumulative impacts. Construction of the majority of (if not all) the cumulative projects would require grading, which would remove topsoil, potentially result in soil erosion, and create excess soil that must be properly disposed of. Each project typically would be required to develop and implement project-specific design and constructions standards to avoid or lessen geology and soils related impacts.

As with other development in the project area, the Triton Substation project is subject to site development and construction standards that are intended to minimize the effects of seismic and other geologic conditions. The project may require the disposal of excavated materials, which could result in a cumulative impact when considered in conjunction with the soil removal and disposal required for the construction of other past, planned, and probable projects in the project area. However, a Stormwater Pollution Prevention Plan (SWPPP) would be develop for the project prior to construction to lessen impacts due to soil erosion and an approved, offsite facility for the disposal of excess excavation materials would be identified. Therefore, the project would not result in cumulatively considerable impacts related to geologic resources and soils when considered in conjunction with identified past, planned, and probable projects.

Hazards and Hazardous Materials

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The projects listed in Tables 3.17-2 through 3.17-7 may require the use, transport, and storage of hazardous materials and may involve hazardous emissions. Potential hazards to public health and safety resulting from implementation of past, planned, and probable projects in the project vicinity have been or would be evaluated through

the local permitting process. For projects identified on the cumulative project list that would require the transport, use or storage of hazardous materials, that may result in hazardous emissions or potentially release hazardous materials, or have the potential to cause or fuel a wildland fire, risks, there would be assessment prior to construction, and project-specific procedures and mitigation would be developed to avoid or lessen potential impacts, including procedures or mitigation measures that specifically address nearby air strips and local emergency response procedures.

The project is not connected with any other project in the project vicinity that may result in hazards to public health and safety. Mitigation requiring the development and implementation of practices designed to prevent accidental release of hazardous materials is included in this document to ensure that construction and operation of the project would not result in a significant hazard to the public or the environment. With the implementation of mitigation designed to prevent any potential impacts due to the release or accidental spillage of hazardous materials, no cumulatively considerable impacts related to hazards and hazardous materials are anticipated.

Hydrology and Water Quality

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction and operation of projects located within the Santa Margarita Watershed of the San Diego Basin and within the Temecula Valley Groundwater Basin could result in cumulative impacts on hydrology and water quality by collectively depleting groundwater supplies, altering existing drainage patterns, violating water quality standards, or contributing polluted runoff. These projects could also result in hydrology impacts if located in a 100-year flood plain or by causing damage to or weakening levees or dams. However, these projects would have to obtain local permits, which typically require established procedures or mitigation on a project-specific basis to lessen or avoid these impacts.

The Triton Substation project would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit and to prepare a Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Control and Countermeasure (SPCC) Plan. Additionally, as required to mitigate impacts on geology and soils and to reduce the risk of accidental spill or leakage of hazardous materials, the project would implement mitigation to ensure that excavated materials are properly disposed of and procedures are established to prevent the release of hazardous materials. These measures will reduce or avoid potential impacts on hydrology and water quality. Because this project would be required to develop the necessary plans and obtain the necessary permits and because it can be reasonably assumed that other projects in the area would be subject to the same requirements and regulations, the project would not result in cumulatively considerable impacts on hydrology and water quality.

Land Use and Planning

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. All projects considered in the cumulative impacts analysis would be subject to the plans, policies, and regulations of their respective agencies and the design of these projects would be subject to local review for consistency with community standards. To ensure consistency with the Western Riverside County MSHCP all projects located in its coverage area would be required to follow the specified survey protocols and, if it is determined that a project would require a take permit, the project applicant may become a participating entity in the Western Riverside County MSHCP.

As is typically required of the projects on the cumulative project list, the Triton Substation project would not divide an established community. If pre-construction surveys indicate the presence of a special status species that the applicant cannot avoid during construction through implementation of PDFs or by adjusting the project footprint, then implementation of MM BIO-3 and MM BIO-4 would ensure consistency with the Western Riverside County MSHCP. Therefore, the project would be consistent with

applicable plans, policies and regulations and would not result in cumulatively considerable impacts under the land use and planning criteria.

Mineral Resources

NO IMPACT. The project would result in no impacts on mineral resources, as discussed in Section 3.10. Therefore, the project would not contribute to cumulatively considerable impacts on mineral resources.

Noise

LESS THAN SIGNIFICANT IMPACT. The construction of multiple projects within proximity to one another could potentially result in noise levels that exceed allowable levels and are cumulatively significant. Additionally, the installation of equipment that emits noise within close proximity to one another could potentially result in noise levels that exceed allowable levels and are cumulatively significant.

The majority of noise impacts associated with the project would occur as a result of construction related activities and usage of construction equipment. The construction period would last 8 months, and worst case scenario noise models predict noise emissions of 80 to 90 dBA at 50 feet. Noise impacts from construction would be localized and would occur for a relatively short duration at any one location along the route for the telecommunications lines, with more extended effects over the construction period around the substation site and along the route for the subtransmission line loop-in. There are no projects in the immediate vicinity of the substation and the subtransmission line loop-in known to be scheduled for construction concurrent with the proposed Triton Substation construction period. Therefore, construction of the project is not expected to result in cumulatively considerable noise impacts.

The project incorporates measures to lessen operational noise impacts, including low-noise substation equipment. With implementation of MM NOI-1, operation of project equipment would not exceed noise regulations. The majority of development in the area includes residential development and the church complex adjacent to the project site. It can be reasonably expected that noise impacts associated with residential and church developments would be low. Therefore, operation of the project is not expected to result in cumulatively considerable noise impacts.

Population and Housing

LESS THAN SIGNIFICANT IMPACT. Development in the project area may result in population growth, particularly as a result of residential subdivision development. The development in the area is not expected to result in the displacement of existing residents or the displacement of existing housing facilities, as the project area is currently characterized by large, open lots.

While implementation of the project would remove a potential barrier to development in the area, the project is consistent with development anticipated by plans and zoning in the jurisdictions that the project would serve. Additionally, the availability of electrical capacity by itself does not normally ensure or encourage growth within a particular area. Project construction and operation would not require a work force not currently available in the project area. Therefore, the project would not contribute to cumulatively considerable impacts on population and housing.

Public Services

LESS THAN SIGNIFICANT IMPACT. Development in the project area would likely increase demand on public services, including fire protection, police protection, schools, and parks. The development of multiple residential subdivisions may result in a population growth, which, when considered cumulatively, would require an increase in or expansion of public services.

As discussed above, the project would not result in population growth and, therefore, would not require an expansion of or increase in public services. Additionally, the project would implement safety measures and inspection and maintenance procedures to prevent emergency demands on police and fire protection services. Therefore, the project would not contribute to cumulatively considerable impacts on public services.

Recreation

LESS THAN SIGNIFICANT IMPACT. Increased residential development in Riverside County and the cities of Temecula and Murrieta may be expected to increase demands on existing recreational facilities or require the construction of new facilities. The development of multiple residential subdivisions may result in a population growth, which, when considered cumulatively, would require an increase in or expansion of recreational facilities.

As discussed above, the project would not result in population growth and, therefore, would not require an increase in or expansion of recreational facilities. Implementation of the project would result in less than significant impacts during construction and no impact during operation on recreation resources. Therefore, the project would not contribute to cumulatively considerable impacts on recreation.

Transportation/Traffic

LESS THAN SIGNIFICANT IMPACT. There are numerous past, planned, and/or probable residential, commercial, and industrial development projects in Riverside County and the cities of Temecula and Murrieta that would be reasonably assumed to increase traffic volumes in the project vicinity during construction and operation.

During the peak construction period for the project, traffic would increase on roadways in the vicinity of the project by no more than one percent, which is considered less than significant. The project would have no impacts during operation. Because the increase in traffic during construction would be minor, particularly when compared with larger traffic increases associated with residential, commercial and industrial development in the area and because the impacts would be temporary, impacts from the project on transportation and traffic are not considered cumulatively significant.

Utilities and Service Systems

LESS THAN SIGNIFICANT IMPACT. Given the number of existing, proposed, and approved residential, commercial, and industrial development projects in Riverside County and the cities of Temecula and Murrieta, it is likely that these jurisdictions will experience increased demand for natural gas, electricity, potable water, wastewater, and disposal facilities.

The project would require small quantities of water during construction for dust control and would require disposal of waste from portable sanitary facilities and non-recyclable construction materials. During operation, the project would require a small amount of water for drought-resistant landscaping and restroom facilities (which would be connected to water and sewer lines when available), which would be used intermittently at the unattended substation. Because the increased demand on public services and utilities would be minor, particularly when compared with larger increases associated with residential, commercial and industrial development in the area, cumulatively considerable impacts on public services and utilities would not occur as a result of the project.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The preceding sections of Chapter 3 discuss various types of impacts that could adversely affect human beings including:

- Dust and air pollutant emissions associated with project construction activities (Section 3.3, Air Quality and Greenhouse Gases)
- Greenhouse gas emissions associated with project construction and operation activities (Section 3.3, Air Quality and Greenhouse Gases)
- Hazards from geologic activity, landslide, hazardous materials, flooding, and fire (Section 3.6, Geology and Soils; Section 3.7, Hazards and Hazardous Materials; and Section 3.8, Hydrology and Water Quality)
- Noise generated during project construction and operation (Section 3.11, Noise)
- Traffic hazards related to project-generated traffic (Section 3.15, Transportation/Traffic)

With the exception of corona noise and greenhouse gas emissions associated with operation of the Triton Substation, these are all temporary impacts associated with project construction. Corona noise that has the potential to exceed the Noise Element of the County of Riverside General Plan would be mitigated under MM NOI-1, and yearly greenhouse gas emissions would be well below established thresholds.

Each type of impact with the potential to cause substantial adverse effects on human beings, either directly or indirectly, has been evaluated in Chapter 3. The evaluation included a review of the project's design and PDFs that would be incorporated by the applicant to minimize potential impacts. It was concluded that all impacts that could adversely affect human beings are either less than significant or would be mitigated to less than significant levels by implementing the following measures:

MM GEO-1: Disposal of Excess Excavated Materials

MM HAZ-1: Hazardous Materials Management Practices

MM HAZ-2: Contaminated Soil/Groundwater Contingency Plan

MM NOI-1: Low-noise Substation Equipment and Noise Barriers

MM NOI-2: Restricted Work Hours

MM NOI-3: Noise Reduction and Control Practices

Therefore, impacts from construction and operation of the project would be less than significant under this criterion.

Table 3.17-2 Projects in Southwest Riverside County Listed on EPA Database

Date	Agency	State	Document	Title
2/9/2007	FRC	CA	Final EIS	Lake Elsinore Advanced Pumped Storage (LEAPS) Project, Construction and Operation, Application for Hydroelectric License, Special-Use-Permit, FERC No.11858, City of Lake Elsinore, Riverside County, CA
3/30/2007	SFW	CA	Draft Supplement	Coachella Valley, Revision to the Multiple Species Habitat Conservation Plan (MSHCP), Natural Community Conservation Plan, Santa Rosa and San Jacinto Mountains Trails Plan, Issuance of Incidental Take Permit, Riverside County, CA

Table 3.17-2 Projects in Southwest Riverside County Listed on EPA Database

Date	Agency	State	Document	Title
4/13/2007	COE	CA	Final EIS	Hemet/San Jacinto Integrated Recharge and Recovery Program, Construction and Operation, US Army COE Section 404 Permit, Riverside County, CA
10/12/2007	SFW	CA	Draft EIS	Agua Caliente Tribal Habitat Conservation Plan (THCP), Application for an Incidental Take Permit for 24 Covered Species, Coachella Valley, Riverside County, CA
11/9/2007	SFW	CA	Final Supplement	Coachella Valley, Revision to the Multiple Species Habitat Conservation Plan (MSHCP), Natural Community Conservation Plan, Santa Rosa and San Jacinto Mountains Trails Plan, Issuance of Incidental Take Permit, Riverside County, CA
3/14/2008	COE	CA	Second Draft Supplement	Santa Ana River Interceptor (SARI) Protection/Relocation Project, Reduce the Risk of Damage to the SARI to allow for the Operation of Santa Ana River Project (SARP), and Releases from Prado Dam of up to 30,000 cubic feet per second (cfs), Right-of-Way Permit and US COE Section 404 Permit, Orange and Riverside Counties, CA
10/17/2008	FHW	CA	Draft EIS	Mid County Parkway Project, Construct a New Parkway between Interstate 15 (I-15) in the West and State Route 79 (SR-79) in the East, Funding and US Army COE Section 404 Permit, Riverside County, CA
5/8/2009	COE	CA	Second Final Supplement	Santa Ana River Interceptor (SARI) Protection/Relocation Project, Reduce the Risk of Damage to the SARI to allow for the Operation of Santa Ana River Project (SARP), and Releases from Prado Dam of up to 30,000 cubic feet per second (cfs), Right-of-Way Permit and US COE Section 404 Permit, Orange and Riverside Counties, CA
7/10/2009	BIA	CA	Draft EIS	Soboba Band of Luiseno Indians Horseshoe Grande Fee-to-Trust Project, Construction of a Hotel and Casino Project, City of San Jacinto, Riverside County, CA

Source: EPA 2009

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2009071070	Riverside County	French Valley Energy Center	The proposed French Valley Energy Center (FVEC) will be a peak period generator capable of producing up to 49 megawatts of power (enough to supply ~38,000 households). The primary structure on the site will be a GE LM6000 gas turbine generator. The generator structure covers ~8,400 sf and is ~70 ft tall at the exhaust stack. Four pre-fabricated steel buildings of various sizes will be constructed to house administration, controls, and maintenance equipment. These will vary in size from 650 to 4,200 sf, totaling ~10,400 sf. 12.5 acres on the western portion of the 7.5 acres on the eastern portion of the parcel will be developed as part of the FVEC project. The remaining 7.5 acres on the eastern portion of the parcel will be preserved as permanent open space.	NOP	7/20/2009
2009061087	Indian Wells, City of	Demolition of City Owned Structures: 77-689 Highway 111, Indian Wells, CA 92210	Project activities would include the following: Demolish all structures and re-grade property; remove all landscaping and irrigation; remove all retaining walls; remove all existing asphalt and concrete; remove all existing utilities and stub out; and remove existing wood trellis and patio cover; Re-landscape to match existing palette on Highway 111. Based on preliminary information, the existing structures on the property may be of historical significance and may be eligible for listing on the California Register. In addition, the site may have significant archaeological resources that may be impacted and the site is part of CA-RIV-64 according to the Eastern Information Center, University of California Riverside.	NOP	6/22/2009
2009031084	Lake Elsinore, City of	Diamond Specific Plan	The Diamond Specific plan is intended to provide the necessary master planning to implement the goals and objectives of the Ballpark District. The proposed project is a master planned, mixed use development providing for commercial, office, educational, entertainment and residential uses. Supporting uses will include parking, vehicular and pedestrian circulation, plazas and open space.	NOP	3/24/2009
2008111100	Elsinore Valley Municipal Water District	Water Distribution System Master Plan and Wastewater Master Plan	The proposed project is a Water Distribution System Master Plan and a Wastewater Master Plan for EVMWD to identify needed facilities through 2030 in the District service area. Proposed facilities are prioritized and phased and presented in a Capital Improvement Plan. Project elements to be evaluated at a construction or site specific level, rather than a programmatic level, are the Alberhill Transmission Pipeline and the Temescal Valley Pipeline (TVP) Pump Station.	NOP	11/20/2008
2008101039	Riverside County	Nuevo Business Park - Phase II	Proposed project involves the approval of a Tentative Parcel Map and a Plot Plan. Parcel map involves the subdivision of approximately 104 acres into nine parcels. The applicant has proposed two options for the plot plan. Option A proposed to develop eight building on the property, with a total of 351 loading docks and 1,620 parking spaces as well as internal driveways and landscape areas. Option B proposes to develop six building on the property with a total of 320 loading docks and 1,595 parking spaces.	NOP	10/7/2008

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2008091049	Eastern Municipal Water District	Temecula Valley Regional Water Reclamation Facility Effluent Storage Expansion Project	EMWD intends to expand its emergency, out-of-compliance, and tertiary storage facilities at its Temecula Valley Regional Water Reclamation Facility.	NOP	9/10/2008
2003031121	Western Municipal Water District	Riverside Corona Feeder	NOTE: NOP of Draft Supplemental Program EIR. Western Municipal Water District (WMWD) was formed in 1954 in order to bring supplemental water to growing western Riverside County and currently serves wholesale customers and approximately 24,000 direct retail connections. WMWD's service area encompasses the cities of Riverside, Norco, Corona, and portions of Murrieta, Temecula and the communities of Jurupa, Rubidoux, and Elsinore Valley. The WMWD service area also includes the Lee Lake Water District, the Box Springs Mutual Water Company, and the Eagle Valley Mutual Company Water. WMWD's service area consists of 527-square miles and a population of more than 853,000 (WMWD).	NOP	7/31/2008
2007041085	Temecula, City of	Santa Margarita Area Annexation	The City of Temecula is proposing to apply to the Local Agency Formation Commission to annex the area known as the Santa Margarita Area Annexation (SMAA). The SMAA project site consists of approximately 4,997 acres of publicly-owned land, most of which is undisturbed natural open space within the Santa Margarita Ecological Reserve. The project area includes 718 acres of private property within which only four lots are currently developed with single-family homes.	NOP	7/28/2008
2008071004	Riverside County	Europa Village	The proposed Europa Village project includes the construction of three separate wineries representing three different regions from counties in Europe on approximately forty (40) gross acres. Plot Plan No. 23319, C'est la Vie Winery, proposes a 33,349 square foot French-style country estate winery consisting of a tasting room, a restaurant, a fermentation room, a barrel storage room, a retail area, and automobile collection display area, a bed and breakfast with ten (10) rooms, administrative offices, and a basement with a wine library on ten (10) gross acres. Plot Plan No. 23320, Bolero Cellars, proposes a 24,518 square foot Spanish-style winery consisting of a tasting room, a restaurant, a retail area, a fermentation room, a barrel storage room, administrative office, and a bed and breakfast with 10 rooms on ten (10) gross acres. Plot Plan 23318, Il Poggio, proposes a 37,170 square foot Italian-style winery consisting of a cave for barrel storage, a tasting room, administrative offices, a warming kitchen for special events, and a fermentation area and a 52,719 square foot hotel consisting of administrative offices, a lounge area, 40 guest rooms, an outdoor garden area, a juice bar, and a spa with eight (8) treatment rooms on 20.04 gross acres.	NOP	7/1/2008

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2008061104	Murrieta, City of	The Triangle Specific Plan	The project proposed development of up to 1,767,914 gross square feet of mixed-use development including hotel, office, restaurant, entertainment, parking and commercial uses.	NOP	6/19/2008
2008041087	Public Utilities Commission	Southern California Edison Devers-Mirage 115 kV Subtransmission System Split	Southern California Edison (SCE) seeks a Permit to Construct (PTC) the Devers-Mirage 115 kV Subtransmission System Split Project, which includes the following major elements: - replacement of approximately 5.3 miles of existing 115 kV single-circuit subtransmission lines with new higher capacity double-circuit 115 kV subtransmission lines and replacement of support structures within existing SCE right-of-ways (ROWs) and franchise locations (public ROWs) between Farrell and Garnet Substations at the City of Palm Springs; - construction of a new 115 kV subtransmission line from Mirage Substation south to I-10, adjacent to the east side of Tri-Palm Estates and within SCE's existing ROWs or franchise locations; - looping the existing Devers-Coachella 220 kV transmission line from an existing ROW to the south for approximately 0.8 mile on double-circuit lattice steel towers to Mirage Substation, located near the community of Thousand Palms; - installation of a new 280 megavolt amperes (MVA) 200/115 kV transformer, two new 220 kV circuit breakers, and five new 115 kV circuit breakers at SCE's existing Mirage Substation; and - replacement of four poles at the intersection of Bob Hope Drive and Dinah Shore Drive.	NOP	4/15/2008
2008031128	Canyon Lake, City of	Conditional Use Permit for Grading Plan No. 08-012-CUP	The proposed project is the implementation of a grading plan and conditional use permit that would result in the mass grading of approximately 25 acres of a +35 acre existing hillside site. The mass grading will result in approximately half the area disturbed remaining as a generally flat area, gently sloped for drainage, and the other half other disturbed area remaining as a terraced hillside. In addition, implementation of the proposed grading plan includes the construction of drainage improvements for stormwater runoff management and water quality control and filling and compacting an area along the edge of the disturbance area for road construction equipment access. Implementation of the proposed grading plan would result in the removal of up 3,145,000 cubic yards of material from the project site. The exported material is intended for use as construction aggregate or fill material at area construction projects. During implementation of the proposed graded project, there would be approximately 300 trips per day transportation the aggregate offsite. The project would be implemented over a period of approximately three years.	NOP	3/28/2008
2008031005	Temecula, City of	Splash Canyon Waterpark (PA08-0337)	The proposed project is the site development and construction of a water park on 15 acres consisting of pools, slides, and other types of water rides, concession stands, gift shop, party room, changing room with lockers, restrooms, picnic areas, service yard, and parking lot. The water park will be operating approximately four months of the calendar year. The park will be open daily from Memorial Day to Labor Day from 10:00AM to 8:00PM. It is anticipated that the park will employ 15 full time employees and 300 seasonal employees.	NOP	3/3/2008

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2008021138	Murrieta, City of	Physicians' Hospital of Murrieta, LLC. Golden City Specific Plan Amendment (SPA), Tentative Parcel Map 35011 (TPM), Medical Office Building (Development Plan),	The proposed project consists of a five-story, 490,000 square foot hospital and a five story, 160,000 square foot Medical Office Building. The hospital will be developed in two phases: Phase I will consists of 248,706 square feet and Phase II will consist of an additional 241, 294 square feet. The Medical Office Building will be developed with Phase I of the hospital. The project also includes all required parking, a separate Energy Center building with an emergency generator and separate bulk storage for medical gases. Finally, the project will include a helipad for emergency transport. A variety of entitlements will be required to implement this hospital complex project.	NOP	2/28/2008
2008011052	Temecula, City of	Mercedes Benz of Temecula (PA07-0335)	The proposed project is a Development Plan application to construct an 80,000 square foot Mercedes Benz car dealership with incidental car maintenance, repair services, and car wash located north of Date Street and west of Ynez Road within the Harveston Specific Plan. This project was previously noticed as a 65,561 square foot building. As the project progressed, the building size increased by 14,439 square feet. The City of Temecula is therefore re-noticing this Initial Study.	NOP	2/25/2008
2008021113	Lake Elsinore, City of	Shoppes at Central Crossroads	The project proposes a Tentative Map for an approximate 13-acre business park development. The proposed project site would consist of 152,450 square feet of general commercial uses. Proposed roadway improvements include the widening of Central Avenue/SR-74 and partially improving Cambern Avenue along the project frontage. The project also proposes the construction of a subsurface storm drain system, an on-site detention basin, and up to five-foot retaining walls along the drainage area on the southeastern property line.	NOP	2/22/2008
2008011082	Public Utilities Commission	Valley-Ivyglen Subtransmission Line and Fogarty Substation Project	Lead agency proposes to construct, operate, and maintain a new 115 kV subtransmission line to connect the existing SCE Valley and Ivyglen Substations, and to construct a new Fogarty Substation to provide additional electrical services to the City of Lake Elsinore area (proposed project). The proposed project also includes constructing improvements at the Valley and Ivyglen Substations to accommodate the proposed subtransmission line, tie-ins between the new Fogarty Substation and existing subtransmission and telecommunications lines, installation of a new telecommunications line between Valley and Ivyglen Substations, transfer of distribution facilities, and stockpiling and/or disposal of old electrical distribution line poles.	NOP	1/22/2008
2008011052	Temecula, City of	Mercedes Benz of Temecula (PA07-0335)	The proposed project is a Development Plan application to construct a 65,561 square foot Mercedes Benz car dealership with incidental car maintenance, repair services, and car wash located north of Date Street and west of Ynez Road within the Harveston Specific Plan.	NOP	1/17/2008

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2007071076	Public Utilities Commission	El Casco System Project	The El Casco System Project includes the proposed El Casco Substation site, upgrades to the Zanja and Banning Substations and the SCE's Mill Creek Communications Site, upgrading of a total of 15.4 miles of existing 115 kV subtransmission line and associated structures, and the installation of fiber optics cables within existing conduits in public streets and on existing SCE structures between the Cities of Redlands and Banning. All portions of the Proposed Project are located within Riverside and San Bernardino Counties, California.	NOP	7/16/2007
2005031017	Temecula, City of	Temecula Regional Hospital	A proposed General Plan Amendment, Zone Change (Planned Development Overlay District), Tentative Parcel Map, Development Plan and Conditional Use Permit to consider a Regional Hospital Facility consisting of a 320-bed hospital approximately 408,000 square feet in size, two medical office buildings approximately 140,000 square feet in size, a 10,000 square foot cancer center, and an 8,000 square foot fitness rehabilitation center, all totaling approximately 566,160 square feet, located on the north side of Highway 79 South, approximately 700 feet west of Margarita Road.	NOP	7/9/2007
2007061104	Riverside County	Liberty Quarry / Surface Mining Permit no. 213, Change of Zone No. 7508, and Noise of Ordinance Exemption No. 00002	Granite Construction Company (Granite) is requesting a Surface Mining Permit (SMP) for the 414 acre Liberty Quarry site located in southwestern Riverside County. An application for a Change of Zone on 110 acres in the middle of the site is also included. The site is located in the Santa Ana Mountains three miles south of the City of Temecula to the west of Interstate 15 (I-15). The site is accessed via the Rainbow Valley Boulevard intersection with I-15, which is also used to access the adjacent California Highway Patrol (CHP) weigh station on the southbound side of I-15. A private access road to be constructed from the off ramp to the project site is located, in part, within a 2.5 acre parcel that lies in San Diego County.	NOP	6/25/2007
2007061106	Hemet, City of	JAKS Retail Center	APN 456-030-010 will require a General Plan Amendment to change the land use designation from "Industrial" to "Commercial." Additionally, this parcel will require a zone change from M-2 to General Commercial (C-2). The remaining two parcels (APN 456-030-009 and 456-030-028) are currently designated "Commercial" in the General Plan and will not require changes to the General Plan land use designation. Both parcels will require zoning changes to change the existing zoning designation of Neighborhood Commercial (C-1) to General Commercial (C-2).	NOP	6/25/2007
2007051156	Riverside County	Bundy Canyon Road/Scott Road Improvement Project	The proposed project would widen and realign portions of a six mile segment of Bundy Canyon Road/Scott Road (from just east of I-215 to just west of I-215) from its existing two lanes to a four lane cross-section. Currently, portions of the existing alignment are windy and narrow, making it difficult for vehicles to pass, and making it difficult to enter and exit the roadway from adjacent properties.	NOP	5/31/2007

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2007041085	Temecula, City of	Santa Margarita Area Annexation	Annexation and concurrent extension of the Sphere of Influence of approximately 4,700 acres from the unincorporated portions of Riverside County into the incorporated City of Temecula. The project is a shift between two local jurisdictions which will result in the re-assigning of responsibility for service provisions from the County of Riverside to the City of Temecula and the Temecula Community Services District. Further this project includes a General Plan Amendment from the County of Riverside designation of Rural Mountainous (10 acre minimum lot size) and Open Space Conservation Habitat to City of Temecula Hillside Residential (10 acre minimum lot size), and Open Space (OS), and Change of Zone from County of Riverside Rural Residential (RR) to City of Temecula Hillside Residential (HR) and Open Space Conservation (OS-C). The density and type of development permitted under the proposed City General Plan designation and proposed zone change will be substantially the same as that now permitted under the County's existing General Plan and zoning designations except that mining and quarry operations would be prohibited under the proposed City General Plan designation and proposed zone change.	NOP	4/19/2007
2007031054	Rancho California Water District	Regional Integrated Resources Plan, Water Facilities Master Plan, and Wastewater Facilities Master Plan	To address issues such as imported water supply availability, increased need for expanded wastewater service, system capacity constrains, rising imported water costs, and water quality issues, RCWD is taking a long-term perspective in the Regional Integrated Resources Plan (IRP), the 2005 Water Facilities Master Plan (WFMP) and the 2005 Wastewater Facilities Master Plan (WWMP), hereby referred to as the "Project", that examines all possible supply-side and demand-side management opportunities to meet its customers' needs in an economical and sustainable manner.	NOP	3/8/2007
2007011144	Lake Elsinore, City of	Marina Specific Plan for WatersEdge, Cottages by the Lake, and Wetland Enhancement Site EIR	The proposed project is a Specific Plan for an approximately 77-acre marina and residential development that would be located in the City of Lake Elsinore on the eastern boundary of the Lake, near the mouth of the San Jacinto Channel. Development of the Specific Plan would also include the provision of three separate residential sites that, when combined, allow for a maximum of 530 residential units. A maximum of 734 total residential units would be permitted within the Specific Plan project area is the hotel, residential loft, and stand alone residential planning areas are combined.	NOP	1/31/2007

Table 3.17-3 Projects in Southwest Riverside County with Notices of Preparation Filed with the OPR

SCH #	Lead Agency	Project Title	Description	Status	Date Received
2007011010	Hemet, City of	Stetson Ranch Specific Plan	The Stetson Ranch Specific Plan is a master planned community, including up to 733 residential homes. R-I residential land uses, located along the east and west boundaries of the Specific Plan area on 20 acres accommodate 140 single-family residences called Villas. R-II residential land uses, located generally within the central portion of the project site, occur on 56.6 acres and contain a maximum of 593 residential units, including garden clusters, auto courts, courtyard clusters and green courts. The development also includes a natural open space/drainage area, a central 4.9-acre park, and two pocket parks that provide recreational amenities for the community.	NOP	1/4/2007

Source: California Office of Planning and Research CEQAnet database, 2009

Table 3.17-4 Projects in Southwest Riverside County filed with Riverside County

CUP Number	Description	Status	Applied Date	Location	Project Type	Applicant Info
CUP03600	100 AC TO BE USED FOR COMPOSTING GREEN WASTE	APPLIED	7/8/2008	N/SAN JACINTO RIVER S/BRIDGE ST E/WARNER RD W/BETTINGER AV	CUP1	ALMEJO RICARDO 37760 BOREL ROAD MURRIETA CA 92563
CUP03516	CUP FOR A 38 UNIT (TOTAL) COMBO MOBILEHOME/RV PARK	APPLIED	6/12/2006	N/O HWY 79 S/O E. BENTON W/O SAGE RD (2006 TG 931-F2)	CUP2	JOHNSON PAUL 37595 SAGE ROAD TEMECULA CA 92544
CUP03606	PUBLIC CEMETERY FOR CITY OF TEMECULA	DRT	9/17/2008	N/DOTTIE COURT S/E BENTON RD E/CAMINO DEL VINO W/BELLA VISTA	CUP1	TEMECULA PUBLIC CEMETERY 41911 C STREET TEMECULA CA 92592
CUP03593	SELF STORAGE FACILITY/RETAIL BUILDING / CAR WASH /	DRT	5/7/2008	N/WINCHESTER RD S/NICHOLAS RD E/LEON RD W/WINCHESTER RD	CUP1	RICHARDS SCOTT J. P.O. BOX 981623 PARK CITY UT 84098
CUP03578	COMMERCIAL EQUIPMENT RENTAL W/RV & BOAT STORAGE	DRT	12/26/2007	N/SCOUTS LANE S/HWY 371 E/BAUTISTA W/BAHRMAN	CUP1	ANZA RENTAL INC/BYRON WRIGHT 31683 CANYON ESTATE DR LAKE ELSINORE CA 92595
CUP03114R2	RENEW EXPIRED RVP00134 - WOOD RECYCLING PLANT	DRT	10/16/2006	N/MERMACH AVE E/LINDY CT W/EL TORO CUTOFF	RV02	LUA ALBERT P.O BOX 1525 LAKE ELSINORE CA 92531
CUP03514	AUTO REPAIR/ WORKSHOP AUTO SALES/ INSTALL STEEL BLDG	DRT	5/25/2006	N/WOOD S/DOWAN W/HAYS	CUP1	EID SAMIH 18085 GRAND AVE LAKE ELSINORE CA 92530
CUP03496	LIQUOR STORE IN EXISTING SHP CTR; (PP009607)	DRT	2/3/2006	N/GRAND AVE S/PALOMAR E/CORYDON ST W/GILL LN	CUP1	DANDOUCH HANNA 19980 GRAND AVE #A L AKE ELSINORE CA 92530
CUP03489	2-STORY 76,938 SF TILTUP FOR STORAGE&15,500 OFFICE	DRT	12/21/2005	N/ACACIA S/FLORIDA E/SABOBA W/NEW CHICAGO AVE	CUP1	PETTY STEVE 41530 FULTON AVENUE HEMET CA 92544
CUP03474	NEIGHBORHOOD SHOPPING CENTER	DRT	10/20/2005	S/CLINTON KEITH ROAD W/HIDDEN SPRINGS RD	CUP1	D H HOLDINGS INC 1046 NORTH SPAULDING AVE LOS ANGELES CA 90046
CUP03367	RECYCLING CENTER	DRT	3/20/2002	N MCLAUGHLIN RD/W ANTELOPE RD/E SAN JACINTO RD	CUP1	RECYCLING EARTH PRODUCTS INC 2216 VIA SUBRIA VISTA. CA 92084

Source: Riverside County 2009

Table 3.17-5 Temecula Wine Country

Name	APN	Case	Status	Max Guests	Gross Acres	Sq. Ft.
Existing Wineries						
Alex's Red Barn	943-210-013	PP20549	Approved BOS 8/23/05		25.1	2,000
Baily Vineyard & Winery	943-100-009	PP15079	Approved BOS 5/19/98		5.29	7,480
Bella Vista Winery	951-140-056	None	N/A		21.43	1,440
Callaway Vineyard & Winery	943-260-024	PP3029	Approved 8/02/77	855	2.28	10,500
Churon Winery	951-060-013	PP15724	Approved DH 4/19/99	300	9.09	30,141
Falkner Winery	943-240-004	PP12339	Approved 8/19/91	300	23.45	9,445
Filsinger Vineyards & Winery	941-290-002	PP5531	Approved PC 10/27/80		31.84	1,152
Hart Winery	943-090-027	PP14756	Approved 11/18/96		8.82	3,584
Keyways Vineyard & Winery	927-630-012	PP14761	Approved 10/28/96		12.84	3,200
La Cereza Vineyard & Winery	951-140-041	PP12661	Approved DH 10/19/92	1000	21.61	6,900
Leonesse Cellars	927-620-004	PP18776	Approved BOS 8/4/04	200	17.84	7,105
Maurice Car'rie Vineyard & Winery	951-140-042	PP09238R1	Approved DH 10/03/88	240	45.68	16,080
Mount Palomar Winery	943-120-023	PP03243	Approved 10/04/77		154.33	2,501
Ponte Winery I	942-230-006	PP16891	Approved DH 8/20/01	540	9.58	5,458
Southcoast Winery Resort & Spa	942-230-004	PP17269	Approved DH 5/13/02	300	37.84	71,220
Thornton Winery	951-020-007	PP09727	Approved PC 7/10/87	400	19.93	5,928
Wiens Family Cellars	942-230-008	PP18824	Approved DH 4/5/04	200	8.94	9,958
Wilson Creek Winery	942-170-006	PP16017	Approved DH 12/6/99	350	2.26	5,387
Oak Mountain Winery	927-660-002	PP21447	Approved DH 10/22/07	100	10	6,296
Briar Rose Winery	951-080-013	PP17944	Approved PC 9/20/06		15	2,170
Cougar Vineyards & Winery	941-170-007	PP22372	Approved 1/28/08	50	10	10,780
Palumbo Family Vineyards & Winery	942-200-011	PP21591	Approved DH 11/19/07		13.28	2,596
Approved Wineries						
Wheeler Ridge Winery & Vineyards	943-210-012	PP22575	PC 12/12/07		20	6,651
Lavendar Farm %	943-110-008	PP22698	Approved DH 3/10/08		4.45	8,665
Las Estrellas Winery	943-240-005	PP20268	Approved DH 9/18/06	350	45.9	27,702
Monte De Oro Winery	942-170-005	PP22515	Approved DH 9/24/07	250	17.11	23,094
Robert Renzoni Vineyards	927-640-003	PP22263	Approved DH 4/7/08	90	11.73	4,890
Three by Three/Tesoro Winery	942-090-016	PP22194	Approved DH 12/17/07		11.8	4,605
Proposed/Legalizing						
Andulusia Winery	943-250-019	PP22521	CPR 3/22/07		20.04	8,600
California Dreamin	943-130-009	PP22569	CPR 3/29/07		10.1	3,844
Carter Estates Winery	943-230-001	PP23017	CPR 9/20/07		119	206,038
Destiny Vineyards	951-140-059	PP23385	CPR		11.03	41,099
Doffo Wines	915-690-015	PP22089	Denied PC 9/19/07		4.31	1,518
Foote Print Winery	924-340-002	PP22217	CPR 10/18/07		18.81	1,600
Frangipani Estate Winery	941-170-006	PP21893	CPR 9/20/07		10.71	3,095
Gershon Bachus Vintners	927-280-036	PP22271	CPR 7/26/07	300	20	3,744
Long Shadow Ranch Winery	943-120-019	PP19998	Denied DH 5/05/08	100	16	7,891
Peltzer Winery	943-120-021	PP21375	CPR 12/06/07		11.5	6,500
Providence Family Winery	942-250-050	PP21570	CPR 10/5/06		22.35	5,600
Stuart Cellars	951-100-001	PP23215	CPR 1/31/08		40.57	47,286
The Castle Bed & Breakfast	942-090-018	PP23411	CPR			
Tocana Bed & Breakfast	951-230-001	PP23165	CPR			
Total					921.84	639,743

Source: Riverside County 2009

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA08-0160	7/22/2008	Applied	A Minor Modification for Food 4 Less to locate a staffed 496 square foot 2 bin recycling facility at the rear of the property, generally located at the southwest corner of Winchester and Ynez at 26419 Ynez Road. (APN 910 300-018)	Betsy Lowrey		Kimco Palm Plaza	City of Temecula	8/5/2008
PA08-0159	7/21/2008	Applied	A Minor Modification to the Rodrigo's Conditional Use Permit (PA08-0031) to allow live entertainment (mood and ambiance table music) and allow the sale of alcohol during business hours not to exceed 1am.	Cheryl Kitzerow/Matt Peters		Temecurich	City of Temecula	8/5/2008
PA08-0158	7/11/2008	Applied	A Minor Modification Application (Planning Review Only) to remove stone facade and replace with stucco to allow for a sign to be located on the Vitamin Shoppe within the mall outlots, on the south side of Winchester approximately 500 feet east of Ynez [APN 910-130-052].	Betsy Lowrey	Susie Rossini	Plaza Temecula	City of Temecula	8/5/2008
PA08-0157	7/10/2008	Applied	A Massage Establishment permit for Mr. Chuyen, Bui, located at 40695 Winchester Road, Suite 3.	Knute Noland	Susie Rossini	CCL Temecula LLC	City of Temecula	8/5/2008
PA08-0155	7/9/2008	Approved	Minor Temporary Use Permit for EZ Lube Grand Opening located at 30625 Temecula Parkway on July 18, 2008 at 7:30 am -7:00 pm through July 19, 2008 at 7:30 am - 6:00 pm. The event will offer oil changes, transmission and radiator services within the existing building. Hot dogs will be served in a 10' x 10' tent.		Adria McCalanahan	Jake CXIV Inc A California Corp	City of Temecula	8/5/2008
PA08-0156	7/9/2008	Applied	A Development Plan for a one story 8,630 office building/bank located on a 1.2 acre parcel at APN 909-360-019.	Eric Jones	Susie Rossini	American AGCredit/Gregg Warren	City of Temecula	8/5/2008
PA08-0154	7/8/2008	Applied	A Minor Conditional Use Permit for the Iron Wok, located at 26520 Ynez Road, to conduct live entertainment with a band or DJ.	Eric Jones		Temecula Pad PQ LLC	City of Temecula	8/5/2008
PA08-0153	7/7/2008	Applied	A Major Modification Application to construct a 6,476 square foot two-story worship center attached to an existing sanctuary, generally located at the southwest corner of Nicolas and Calle Medusa at 31143 Nicolas Road [APN 957-140-010]. This project is related to previously approved Development Plan Planning Application PA02-0257.	Betsy Lowrey		Grace Presbyterian Church of Temecula	City of Temecula	8/5/2008
PA07-0200	1/9/2008	Approved	Development Plan to construct approximately 565,260 square feet of hospital, medical office, cancer center, and fitness rehabilitation center on 35.31 acres. The proposed project is located north of Temecula Parkway (Highway 79 South), south of De Portola Road and approximately 700 feet west of Margarita Road.	Emery Papp		Universal Health Services of Ranch Springs, Inc.	City of Temecula	1/9/2008

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA07-0229	3/5/2008	Approved	Planning Application to construct 274 apartment units within 16 buildings on 13.7 acres with an associated clubhouse, storage rooms, detached garages, carports, and tot lots, located at the southwest intersection of Pujol Street and First Street.	Christine Damko		DMC Temecula Villa	City of Temecula	3/5/2008
PA07-0339	4/2/2008	Approved	An Extension of Time for a Development Plan and Minor Exception for a 13,709 square foot commercial building on .51 acres, located at 28865 Old Town Front Street.	Eric Jones		Janet Lee	City of Temecula	4/2/2008
PA06-0389	6/4/2008	Approved	A Conditional Use Permit and Development Plan to construct a 26,418 square foot self-storage facility with nine storage buildings and 42 covered RV parking spaces located at 41705 Overland Drive.	Dana Schuma		Ken High	City of Temecula	6/4/2008
PA08-0171	8/5/2008	Applied	A Minor Temporary Use Permit to allow for a temporary location to hold music education instruction for The Musician's Workshop Cultural Arts Center located at 27455 Tierra Alta Way Suite F while tenant improvements are under construction in the remaining suite E. The temporary use is allowed per Debbie Ubnoske for eight weeks from August 11, 2008 through October 10, 2008		Adria McClanahan	Garrett Group	City of Temecula	8/5/2008
PA08-0172	8/5/2008	Applied	A Sign Program for the Moraga Plaza consisting of four one story buildings located at 29760 Rancho California Road.	Eric Jones	Adria McClanahan	Moraga Plaza	City of Temecula	8/5/2008
PA08-0166	8/1/2008	Applied	A Minor Modification application (Planning Review Only) to Planning Application No. PA06-0193, Morning Ridge Condo Conversion, to change the expiration date to be consistent with the Tentative Tract Map and to allow for a reduction in the required private storage space per unit to accommodate washer/dryer units on private patios.	Cheryl Kitzerow/ Matt Peters		Morning Ridge	City of Temecula	8/5/2008
PA08-0167	8/1/2008	Applied		Knute Noland	Adria McClanahan	Temecula Legacy Prop	City of Temecula	8/5/2008
PA08-0168	8/1/2008	Applied	A Major Temporary Use Permit for the Temecula OnStage event, a fundraiser for Wishes For Children that entails live music and wine tasting located at 42081 Main Street between the Murrieta Creek and Front Street within Old Town Temecula on August 30th between 5:00pm to 11:00pm.	Christine Damko		Redevelopment Agency City of Temecula	City of Temecula	8/5/2008
PA08-0170	8/1/2008	Applied	An Extension of Time request for a 3 year extension to PA06-0118, a Development Plan/Home Product Review to construct 10 single family residences located on Rancho California Road east of Riesling Court.	Cheryl Kitzerow/ Matt Peters		Allison Randy	City of Temecula	8/5/2008

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA08-0165	7/31/2008	Applied	A Conditional Use Permit/Antenna Facility Application for ATT Wireless to install two slimline poles and an equipment structure on Rancho California Water District property located at 41520 Margarita Road.	Dana Schuma		Rancho Calif Water Dist	City of Temecula	8/5/2008
PA08-0164	7/30/2008	Applied				VONS Co Inc	City of Temecula	8/5/2008
PA08-0163	7/29/2008	Applied	A Major Temporary Use Permit for the 2008 Temecula Valley International Film and Music Festival located within the Tower Plaza shopping center and parking lot, 27531 Ynez Road from September 17th to the 21st from 9:00am to 11:00pm.	Christine Damko	Susie Rossini		City of Temecula	8/5/2008
PA08-0162	7/28/2008	Applied	A major modification to reconstruct the facade of an approved development plan PA99-0476 (existing restaurant -Five and Ten Diner) to a bank (Arrowhead Credit Union), generally located on the east side of Ynez approximately 500 feet south of Winchester at 26460 Ynez Road [APN 910-320-037].	Betsy Lowrey		Levi Soheil P	City of Temecula	8/5/2008
PA08-0161	7/23/2008	Applied	A Minor Modification to an approved Development Plan (PA00-0213, Bel Villagio) to construct a fountain and reconfigure landscaping and trash service areas within an existing drive aisle between Buildings L and M (existing). Also included is a request to construct an outdoor dining patio for Building L. The project is located in the Bel Villagio shopping center on the west side of Margarita Road, north of Overland Road.	Cheryl Kitzerow/Matt Peters		WGA Bel Villaggio	City of Temecula	8/5/2008
PA07-0239	5/7/2008	Approved	A Development Plan for the restoration of the historic Vail Ranch Headquarters Complex proposing re-use of six historic structures totaling 13,390 square feet and 13,738 square feet of historically appropriate new construction for retail, office, retsaurant and museum display uses on four acres within the Vail Ranch specific plan zoned historic commercial located at 32115-32125 Temecula Parkway.	Betsy Lowrey		Vail Ranch Restoration Association	City of Temecula	5/7/2008
PA06-0113	1/3/2007	Approved	A Development Plan to construct a 50,376 square foot mixed-use restaurant and office building on 0.5 acres located at 42081 3rd Street.	Fisk		Matthew Fagan	City of Temecula	1/3/2007
PA06-0060	1/3/2007	Approved	A Tentative Parcel Map and Development Plan for a multi-family residential project to construct 97 condominium units on 8.9 gross acres, located within Planning Area 13 of the Redhawk Specific Plan at the southeast corner of Peach Tree Street and Deer Hollow Way.	Dana Schuma		Artisan Communities	City of Temecula	2/7/2007
PA06-0293	2/21/2008	Approved	A Development Plan and Conditional Use Permit to expand the Promenade Mall by 125,950 square feet with an outdoor life-style main street shopping center and construct two parking structures,	Matt Peters		Forest City Commercial Development	City of Temecula	2/21/2007

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
			located between Edwards Cinema and Macy's.					
PA006-0140	3/7/2007	Approved	A Development Plan and Minor Exception to construct a 13,500 square foot, two-story medical building on .86 acres and to reduce the number of required parking spaces by three spaces, from 45 spaces required to 42 provided, located approximately 450 feet west of Interstate 15 and approximately 1200 feet north of Highway 79 South just south of Old Town Temecula.	Lecomte	Joseph Orloff	Interactive Architects	City of Temecula	3/7/2007
PA006-0325	4/4/2007	Approved	A first Extension of Time for a previously approved Development Plan for 98 detached single-family homes, located in Planning Area 1A of the Roripaugh Specific Plan south of Murrieta Hot Springs Road and west of the future extension of Butterfield Stage Road.	Dana Schuma		DR Horton	City of Temecula	4/4/2007
PA05-0365	4/4/2007	Approved	A Development Plan to construct and operate a recreation facility totalin 26,100 square feet on a 20.23 acre site, located at 29119 Margarita Road.	West		YMCA	City of Temecula	4/4/2007
PA04-0544	5/2/2007	Approved	A Development Plan to construct two concrete tilt-up buildings totaling 32,386 square feet for industrial and service commercial uses on 2.5 acres, located between Calle Cortez and Las Haciendas Street east of Del Rio Road.	Dana Schuma		HB & A Architects	City of Temecula	5/2/2007
PA06-0613	5/16/2007	Approved	A Development Plan to construct a three-story 77,408 square foot hotel (Marriott Springhill Suites) with 142 units, located on a vacant 3.47 acre parcel, on the east side of Jefferson, approximately 1,000 feet north of Rancho California Road.	Betsy Lowrey	David Simmons	Key West Engineering	City of Temecula	5/16/2007
PA06-0026	6/6/2007	Approved	A Conditional Use Permit to construct a 70-foot tall T-Mobile wireless telecommunication facility designed as a broadleaf tree within a 676 square foot enclosure, located at 42010 Moraga Road, adjacent to the northwest corner of Rancho California and Moraga Roads.	Christine Damko	Randi Newton	Spectrum Surveying	City of Temecula	6/6/2007
PA06-0338	6/20/2007	Approved	A Development Plan for a proposed three-story commercial/office building totaling 29,409 square feet, located on the southeast corner of Old Town Front Street and 5th Street within the Old Town Specific Plan.	Christine Damko	Rick Conroy	C&R Architects	City of Temecula	6/20/2007
PA07-0132	7/18/2007	Approved	A Development Plan for the construction of a one-story 13,958 square foot commercial building, located on the northwest corner of Landings and Village Roads wtihin the Harveston Specific Plan.	Christine Damko		Michael Crews Development	City of Temecula	7/18/2007

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA06-0278	7/18/2007	Approved	A Development Plan to construct three professional office buildings totaling 38,501 square feet on a 2.8 acre site, located on the southwest corner of De Portola Road and Margarita Road.	Dana Schuma		Kal Pacific & Associates	City of Temecula	7/18/2007
PA06-0313	8/1/2008	Approved	A Development Plan for the construction of a 20,820 square foot industrial building, located on the south side of Via Montezuma west of Jefferson Avenue.	Dana Schuma	Kenneth Kaplan	Front & Montezuma, LLC	City of Temecula	8/1/2007
PA07-0058	8/1/2007	Approved	An Extension of Time for a Development Plan and COnditional Use Permit for the construction and operation of St. Thomas of Canterbury Episcopal Church with preschool including 30,473 total building square footage on 3.75 acres, located at 44651 Avenida de Missiones.	Betsy Lowrey	Mel Malkoff	Malkoff & Associates	City of Temecula	8/1/2007
PA06-0329	8/29/2007	Approved	A Development Plan to construct an 11,595 square foot one-story office building, located on the east side of Margarita Road, approximately 300 feet north of De Portola Road.	Lecomte		Elias Alfata	City of Temecula	8/29/2007
PA07-0220	9/5/2007	Approved	A Development agreement to authorize the development of an approximate 84 acre site generally located at the northwest corner of Winchester Road and Dendy Parkway in the City of Temecula.	Dana Schuma		Temecula Properties, LLC	City of Temecula	9/5/2007
PA07-0085	10/3/2007	Approved	A Development Plan to construct a three-story 35,000 square foot office building and three-story 50,000 square foot building on a 5.3 acre site, located at the southwest corner of Rancho California Road and Moraga Road.	Betsy Lowrey	Bob Crisell	Rancho View Professional Center	City of Temecula	10/3/2007
PA07-0176	10/17/2007	Approved	A Development Plan for an 11,456 square foot expansion to the existing Temecula Stage Stop complex to include the addition of a 4,257 square foot office retail building, a 3,328 square foot second floor expansion over the existing Temecula Wine and Beer Garden, an 3,871 square feet of associated improvements, located at 28464 Old Town Front Street.	Dana Schuma		Walt Allen Architects	City of Temecula	11/7/2007
PA07-0180	11/7/2007	Approved	A Major Modification to construct a 4,034 square foot First Bank building with drive-thru, located on the northeast corner of Winchester and Nicolas Roads in the Rancho Temecula Town Center.	Cheryl Kitzerow		Joseph Jaworski	City of Temecula	11/7/2007
PA07-0057	12/5/2007	Approved	A Development Plan for a Major Modification to construct a combined high school, middle school and gymnasium facility totaling 93,164 square feet, located north of Temecula Parkway, east of Jedidiah Smith Road approximately 800 feet west of Rancho Pueblo Road.	Lecomte		Malkoff and Associates	City of Temecula	12/5/2007

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA04-0463	12/7/2005	Approved	A Development Plan to construct a 408,160 square foot hospital, a helipad, two medical office buildings totaling 140,000 square feet, a 10,000 square foot cancer center, and an 8,000 square foot fitness rehabilitation center all totaling 566,160 square feet on 35.31 acres, located on the north side of Highway 79 South, approximately 700 feet west of Margarita Road.	Emery Papp		Universal Health Services, Inc.	City of Temecula	1/5/2006
PA05-0312	3/15/2006	Applied	An Extension of Time for a three-story, 31,600 square foot, 56-unit hotel building on 1.35 acres, located 200 feet east of Jefferson Avenue and 200 feet north of Winchester Road.	Veronica McCoy		MDMG, Inc.	City of Temecula	
PA05-0105	3/15/2006	Applied	A Development Plan to construct an 11,271 square foot commercial building on .987 acres, located at 41755 Enterprise Circle South.	Harmony Linton		Walt Allen Architects	City of Temecula	
PA05-0139	3/15/2006	Applied	A Development Plan to construct a two-story 18,689 square foot office building on 1.41 acres, located on the northwest corner of Diaz Road and Blackdeer Loop.	Harmony Linton		James Horecka	City of Temecula	
PA05-0189	3/1/2006	Approved	A Development Plan and Conditional Use Permit to construct a 119,755 square foot self-storage facility which includes a canopy for RV storage and a manager's living quarters, located on the southeast corner of Butterfield Stage Road and Highway 79 South.	Christine Damko	Ariel Valli	Valli Architectural Group	City of Temecula	3/1/2006
PA04-0492	1/18/2006	Approved	A Development Plan for the development of 96 single-family units, 96 triplex units, and 236 four-plex units (428 total units) located at the north eastern corner of the intersection of Loma Linda Road and Temecula Lane.	Christine Damko		DR Horton	City of Temecula	1/18/2006
PA04-0584	1/18/2006	Approved	A Development Plan to construct and operate a three-story, 15,333 square foot mixed-use retail/office building and a Minor Exception to permit a 15 percent reduction in the parking requirements for a project on a 1.4 acre site located on the west side of Old Town Front Street, approximately 1,400 feet south of Santiago Road.	Fisk	Rick Conroy	Newport Architects	City of Temecula	1/18/2006
PA05-0275	2/15/2006	Approved	A Development Plan to construct an 8,374 square foot building on .95 acres, located on the southeast corner of Ynez Road and Overland Drive.	Fisk	Bob Lombardo	BJ's Restaurant	City of Temecula	2/15/2006
PA05-0294	4/19/2006	Approved	A Comprehensive Sign Program to construct a 73,306 square foot shopping center that includes five retail buildings, located on Highway 79 South between Mahlon Vail and Butterfield Stage Road.	Emery Papp		Vail Properties	City of Temecula	4/19/2006
PA05-0167	4/19/2006	Approved	A Development Plan to construct a 21 acre multi-family housing development consisting of 70 buildings with a total f 210 individually owned attached triplex units, located near the westerly end of Temecula.	Emery Papp		Pulte Home Corporation	City of Temecula	5/3/2006

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA05-0096	5/3/2006	Approved	A Development Plan for the construction of four single story industrial buildings totaling 54,504 square feet, located on the south side of Winchester Road, west of the Diaz Road and Winchester Road intersection.	Christine Damko	Andrew Kjellberg	McArdle Associates	City of Temecula	5/3/2006
PA05-0378	5/17/2006	Approved	A Development Plan for 130 detached single-family homes on the north side of Date Street, adjacent to the northeast corner of the intersection of Ynez Road and Date Street in the Harveston Specific Plan.		Matthew Fagan	Lennar Homes	City of Temecula	5/17/2006
PA05-0236	5/17/2006	Approved	A Tentative Tract Map and Development Plan to create one lot for condo purposes and construct 110 age-restricted units on 7.5 acres, located at the northwest corner of Margarita Road and Dartolo Road.	Harmony Linton		Vicki Mata	City of Temecula	5/17/2006
PA06-0037	5/17/2006	Approved	A Conditional Use Permit and Development Plan for a 22,522 square foot, three-story mixed use commercial/residential building consisting of approximately 4,669 square feet of retail space and 22 affordable apartment units, located on the north side of Fifth Street approximately 200 feet east of Front Street.	Christine Damko	David Kniff	KEA Architecture	City of Temecula	5/17/2006
PA06-0048	5/17/2006	Approved	A Conditional Use Permit and Development Plan to construct and operate an automobile dealership building with associated service facilities totaling 32,560 square feet on 3.7 acres, located at the southwest corner of Ynez Road and DLR Drive.	Fisk		James Cappadocia	City of Temecula	5/17/2006
PA06-0055	6/7/2006	Approved	A Development Plan for 76 detached single-family cluster homes in Tracts 32436-1 and 32426-F, located on the north side of Date Street adjacent to the northeast corner of the intersection of Ynez Road and Date Street in Harveston Specific Plan.	Christine Damko	Scott Frick	Lennar Homes	City of Temecula	6/7/2006
PA06-0046	6/7/2006	Approved	A Development Plan for three retail buildings totaling 29,498 square feet on 3.46 gross acres located on the southeast corner of Margarita Road and DePortola Road.	Dana Schuma	Paul Gupta	Binaca Properties	City of Temecula	6/7/2006
PA05-0396	7/5/2006		A Development Plan for the development and construction of 292 condominium residential units including 29 affordable housing units comprising of 189 tri-plex units in 63 buildings, 25 five-plex units in 5 buildings, 78 six-plex units in 13 buildings, located on the northeast corner of Pechanga Parkway and Loma Linda Road.	Hazen	Lindsay Quackenbush	DR Horton	City of Temecula	
PA04-0543	9/6/2006	Approved	A Development Plan for a proposed one-story 17,378 square foot concrete tilt-up office and warehouse building, located on th east side of Del Rio Road, approximately 150 feet south of Calle Cortez Road.	Christine Damko	Mark Stock	HB&A Architects, Inc.	City of Temecula	9/6/2006

Table 3.17-6 City of Temecula – Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
PA05-0389	9/6/2006	Approved	A Conditional Use Permit with a Development Plan for the construction of two new buildings to accommodate a sanctuary and classrooms, and for the use of an existing chapel totaling 15,043 square feet at an existing religious institution, located within the Rancho Highlands Specific Plan at 28871 Santiago Road.	Hazen		Matthew Fagan	City of Temecula	9/6/2006
PA06-0213	10/18/2006	Approved	A Development Plan and Conditional Use Permit for the construction of a 13,000 square foot water park on approximately 15.4 acres consisting of pools, slids, and other types of water rides, other buildings, and an associated parking lot, located at the northwest intersection of Ynez Road and County Center Drive.	Christine Damko		Clearwater Waterpark Development	City of Temecula	10/18/2006
PA06-0135	11/15/2006	Approved	A Conditional Use Permit and Development Plan to construct and operate a liquid natural gas (LNG) station. The development will consist of one 45-foot high LNG tank, and emergency underground water storage tank, and a 14,776 square foot office/warehouse building, located at 28011 Diaz Road.	Fisk		M & D Properties	City of Temecula	12/6/2006

Source: City of Temecula 2009

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
	7/1/2008	Existing	175 Units in Zone MU-3, located on the S.E. corner of Date and Winchester Creek.			Hilltop at Winchester Creek Apartments	City of Murrieta	6/28/1905
	7/1/2008	Existing	492 Units in Zone MU-1, located S.E. of Los Alamos and Vista Murrieta.			Silverado Apartments	City of Murrieta	6/29/1905
	7/1/2008	Existing	144 Units in Zone MF-2, located at Walsh Center Drive, W. of Hancock.			Vista Pointe Apartments	City of Murrieta	6/29/1905
	7/1/2008	Existing	453 Units in Zone MU-3, located on the S.E. corner of Jefferson and Lemon.			Grand Isle at Village Walk Senior Apartments	City of Murrieta	6/30/1905
31324	7/1/2008	Existing	92 Units in Zone MU-3, located on the S.W. corner of Jefferson and Ivy.			Amberwalk at Ivy Condos	City of Murrieta	6/28/1905
31049	7/1/2008	Existing	248 Units in Zone MU-3, located on the S.W. corner of Madison and Juniper.			The Reserves at Madison park Condos	City of Murrieta	6/28/1905
30953	3/1/2008	Approved	134 Units in Zone MU-3, located at the N.E. corner of Washington and Fullerton.			Washington Murrieta Condos	City of Murrieta	3/1/2008
31467	3/1/2008	Approved	64 Units in Zone MU-3, located at the S.E. corner of Washington and Fullerton.			AC Washington Condo	City of Murrieta	3/1/2008
31497	3/1/2008	Approved	60 Units in Zone MU-3, located at the S.E. corner of Washington and Lemon.			AC Lemon Condos	City of Murrieta	3/1/2008
28379	3/1/2008	Approved	390 Units in Zone SPM 15, located in the Creekside Village Specific Plan.			Creekside Condos	City of Murrieta	3/1/2008
26097	3/1/2008	Approved	122 Units in Zone MF-2, located on the E. side of Monro, S. of Jackson.			The Ridge at Cal Oaks Condos	City of Murrieta	3/1/2008
33893	3/1/2008	Approved	42 Units in Zone MU-3, located on the W. side of Adams Avenue.			Richard Zuniga Condos	City of Murrieta	3/1/2008
	3/1/2008	Approved	47 Units in Zone MU-1, located at Vista Murrieta-Skypark at Los Alamos Road.			Cameo Homes	City of Murrieta	3/1/2008
31059	3/1/2008	Approved	210 Units in Zone MF-2, located on the W. side of Jackson, S. of Monroe.			Jackson Avenue Superior Apartments	City of Murrieta	3/1/2008
30394	3/1/2008	Approved	210 Units in Zone MF-1, located in the N.E. corner of Washington and Nutmeg.			Nutmeg-Washington Apartments	City of Murrieta	3/1/2008

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
	3/1/2008	Approved	180 Units in Zone MF-2, located at Murrieta Hot Springs, E. of Via Princess E.			Murrieta 180 Apartments	City of Murrieta	3/1/2008
29757	3/1/2008	Approved	324 Units in Zone MU-3, located E. of Jefferson and N. of Murrieta Hot Springs.			Jefferson I Apartments	City of Murrieta	3/1/2008
31078	3/1/2008	Approved	170 Units in Zone MF-2, located on the E. side of Jefferson, S. of Los Alamos.			Jefferson II Apartments	City of Murrieta	3/1/2008
28532	7/1/2008	Approved	501 Units in Grid 8.		Mike Cole	Cole Realty	City of Murrieta	7/1/2008
28903	7/1/2008	Approved	1021 Units in Grid 40.		Bill Kennedy	Veinyards-Sontewood Development	City of Murrieta	7/1/2008
28903-1	7/1/2008	Approved	109 Units in Grid 40.		Tom Huska	Pulte Homes	City of Murrieta	7/1/2008
29429	7/1/2008	Approved	7 Units in Grid 55.		Danny Powers	Adkan Engineers	City of Murrieta	7/1/2008
29717	7/1/2008	Approved	24 Units in Grid 16.		Jim Bolton	Pacific Century	City of Murrieta	7/1/2008
29981	7/1/2008	Approved	38 Units in Grid 48.		Markham & Associates	Pasha Inv. LLC	City of Murrieta	7/1/2008
30172	7/1/2008	Approved	25 Units in Grid 61.		Steve Blanchard	Ranco Development	City of Murrieta	7/1/2008
30348	7/1/2008	Approved	24 Units in Grid 47.		Markham & Associates	Fred Sauer	City of Murrieta	7/1/2008
30435	7/1/2008	Approved	6 Units in Grid 33.		Tony Piscolli	Philip Molitor	City of Murrieta	7/1/2008
30802	7/1/2008	Approved	137 Units in Grid 51.		Don Lohr	Hall & Foreman	City of Murrieta	7/1/2008
31121	7/1/2008	Approved	24 Units in Grid 10.		Steve Lloyd	Greer/Lennar	City of Murrieta	7/1/2008
31251	7/1/2008	Approved	8 Units in Grid 52.		Art Bananal	Michael Delaney	City of Murrieta	7/1/2008
31510	7/1/2008	Approved	119 Units in Grid 10.		Bob Diehl	Lennar Homes	City of Murrieta	7/1/2008
31581	7/1/2008	Approved	111 Units in Grid 51.		RBF Consulting	Fieldstone Communities	City of Murrieta	7/1/2008
31878	7/1/2008	Approved	165 Units in Grid 36.		Ted Weggeland	Opportunity Properties	City of Murrieta	7/1/2008

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
31956	7/1/2008	Approved	7 Units in Grid 32.		Steve Carol	Woodbridge Development	City of Murrieta	7/1/2008
31997	7/1/2008	Approved	9 Units in Grid 41.		Eric W. Smith	AVI Properties, LLC	City of Murrieta	7/1/2008
31998	7/1/2008	Approved	16 Units in Grid 11.		Bruce Davis	Webb and Associates	City of Murrieta	7/1/2008
31999	7/1/2008	Approved	14 Units in Grid 7.		Bruce Davis	Webb and Associates	City of Murrieta	7/1/2008
32043	7/1/2008	Approved	24 Units in Grid 56.		Glen Daigle	Murrieta Pacific Co.	City of Murrieta	7/1/2008
32050	7/1/2008	Approved	14 Units in Grid 40.		Aseet patel	VP Group, LLC	City of Murrieta	7/1/2008
32266	7/1/2008	Approved	99 Units in Grid 3.		Robert Schmitt	HNB, Inc.	City of Murrieta	7/1/2008
32316	7/1/2008	Applied	64 Units in Grid 7.		Curtis Gullett	Cap Prop	City of Murrieta	7/1/2008
32543	7/1/2008	Applied	200 Units in Grid 27		Sam Alhadeff	Winchester 700	City of Murrieta	7/1/2008
32718	7/1/2008	Approved	10 Units in Grid 4.		Hall & Foreman	Hall & Foreman	City of Murrieta	7/1/2008
33231	7/1/2008	Approved	35 Units in Grid 11.		Pinnacle Communities	Pinnacle Comm, LLC	City of Murrieta	7/1/2008
33286	7/1/2008	Applied	15 Units in Grid 26.		Merle Schulze	DFC Family LTD Partnership	City of Murrieta	7/1/2008
33439	7/1/2008	Applied	64 Units in Grid 48.		April Tornellow	Taylor Woodrow Homes	City of Murrieta	7/1/2008
33871	7/1/2008	Applied	38 Units in Grid 34.		Samir Adabir	Samir Adabir	City of Murrieta	7/1/2008
33377	7/1/2008	Applied	57 Units in Grid 51.		Temecula Valley, LLC	Lennar Homes	City of Murrieta	7/1/2008
33904	7/1/2008	Applied	38 Units in Grid 3.		Hunsaker & Associate	Hunsaker Associates	City of Murrieta	7/1/2008
34051	7/1/2008	Applied	89 Units in Grid 10.		Hunsaker & Associate	Granite Homes	City of Murrieta	7/1/2008

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
34250	7/1/2008	Applied	13 Units in Grid 41.		Chris Sheppard	Summer Creek Homes	City of Murrieta	7/1/2008
34394	7/1/2008	Applied	8 Units in Grid 3.			Way BM	City of Murrieta	7/1/2008
34445	7/1/2008	Applied	14 Units in Grid 3.		Nancy Capos	SCC Murrieta Valley	City of Murrieta	7/1/2008
34530	7/1/2008	Applied	6 Units in Grid 22.		Scott Reis	Scott Reis	City of Murrieta	7/1/2008
			Jefferson Gateway consists of 15 buildings totaling 115,157 square feet for sale or lease. Phase I of this projects includes six industrial buildings for sale from 6,700 to 16,044 square feet with an optional fenceable yard. Located at Jefferson Avenue between Elm and Fig Streets.		Mike Strode	Lee & Associates	City of Murrieta	
			Murrieta Creek Business Center consists of three buildings totaling 73,197 square feet for industrial, office, and retail use. Located adjacent to Jefferson Avenue, south of Guava Street.		Dan Walsh	NAI Capital	City of Murrieta	
			Crossroads Corporate Center, Phase II is complete. A four-story, 78,000 square foot building and a 40,000 square foot two-story building are proposed to complete the project. This Premier Class "A" office campus is located at 25220 and 25420 Hancock Avenue, between Murrieta Hot Spings and Los Alamos Roads.		Mary Piper	Lee & Associates	City of Murrieta	
			The Courtyard is a 36,000 square foot Courtyard located on Kalmia Street, one mile west of Interstate 15. There are two 18,000 square foot single-story buildings, with courtyard setting.		Mary Pieper	Lee & Associates	City of Murrieta	
			Murrieta Corporate Office is located north of Murrieta Hot Springs Road, on Hancock Avenue. This three-story, class A office project offers built-to-suit opportunities. Total square footage is 46,000 square feet.		Kevin Nellis	Colliers International	City of Murrieta	
			Sparkman Professional Building, a 27,600 square foot office project, is prominently located on Medical Center Drive.		Kevin Nellis	Colliers International	City of Murrieta	
			Murrieta Point Medical Offices is in phase two. It is an upscale commercial center with high-end dinging, consisting of two 18,000 square foot buildings. It is located north of		Kevin Nellis	Colliers International	City of Murrieta	

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
			Murrieta Hot Springs Road, between Interstates 15 and 215.					
			Rancho Springs Medical Plaza II is a new 53,000 square foot medical building located at 25495 Medical Center Drive.		Rob Crisell	Lee & Associates	City of Murrieta	
			The Triangle Lifestyle Center is a 1.3 million square-feet, mixed use lifestyle center with opportunities for major retail tenants, entertainment venues, high-end restaurants, a four star hotel and 450,000 square feet of class A office. It is located south of Murrieta Hot Springs Road at the confluence of Interstates 15 and 215.		Bruce Coleman	City of Murrieta	City of Murrieta	
			The Terraces at Murrieta Springs is a 384,000 square foot mixed-use lifestyle center on 36 acres located at the NEQ of I-15 and Murrieta Hot Springs Road. The proposed uses include 3 anchor locations, 145,000 square feet of shops, 5 free-standing restaurants, an 18,000 square foot office building and 150 room hotel.		Jason Blum	Interra Development Partners, LLC	City of Murrieta	
			Olivewood is a center featuring retail shops from 1,325 to 7,000 square feet and a 1,600 square foot suite with drive-thru access. It is located at the southeast corner of Jefferson Avenue and Kalmia Street. The project is schedule to be completed in the second quarter of 2009.		Rick Neugebauer	Oak Grove Equities Inc.	City of Murrieta	
			Murrieta Town Square includes 34 acres of well-situated land just two blocks from Interstate 15 and the redeveloping downtown. The square includes Town Square Park, a four-acre park that features festival seating, and a 40-foot walking area around the parameter. The site plan calls for six additional pads of varying sizes suitable for office, light retail, and restaurants.		Bruce Coleman	City of Murrieta	City of Murrieta	

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
			Oak Grove Professional is a 33,994 square foot, three-story, multi-tenant office building located on Jefferson Avenue. The project is near Murrieta's Town Center and numerous business amenities and eateries.		Nancy Austin	Austin-Brockett Commercial Real Estate	City of Murrieta	
			Adams Industrial Park includes six buildings totaling 32,058 square feet for sale or lease. Most buildings have fenceable yards. It is located on Adams Avenue, south of Corporate Center Drive and north of Date Street.		Mike Strode	Lee & Associates	City of Murrieta	
			Alesco Jefferson Avenue Business Park includes 37 buildings totaling 454,779 square feet for sale or lease. Located at Jefferson and Adams Avenues, north of Fig Street.		Les Young	Alesco Development	City of Murrieta	
			Elm Street Business Park includes 8 industrial buildings totaling 162,138 square feet for sale or lease. Located on Elm Street between Adams and Jefferson Avenues.		Lisa Butterwegge	Coldwell Banker Associated Brokers	City of Murrieta	
			Gateway Centre consists of two retail showroom buildings comprising buildings totaling 29,740 square feet. There are also three flex-tech buildings totaling 29,128 square feet. It is located at the northwest corner of Jefferson Avenue and Corning Place.53,190 square feet with divisible suites and four small executive office		Laura Menden	Lee & Associates	City of Murrieta	
			Golden Gate Industrial Park consists of 4 tilt-up concrete constructed buildings totaling 18,658 square feet with private enclosed yards. Located north of Golden Gate Circle, east of Madison Avenue and west of Interstate 15		Rob Crisell	Lee & Associates	City of Murrieta	
			Jefferson Business Center comprises 224,000 square feet of retail and light industrial space. Includes 18 showroom/office units for sale or lease and 14 industrial buildings for sale or lease. Located at the southwest corner of Jefferson Avenue and Fig Street.		Mike Strode	Lee & Associates	City of Murrieta	
			Jefferson Business Center comprises 224,000 square feet of retail and light industrial space. Includes 18 showroom/office units for sale or lease and 14 industrial buildings for sale or lease. Located at the southwest corner of Jefferson Avenue and Fig Street.		Mike Strode	Lee & Associates	City of Murrieta	

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
			Margarita Ville is an 110,000 square foot shopping center located at the southwest corner of Murrieta Hot Springs and margarita Roads.		Brian Bielatowicz	Lee & Associates	City of Murrieta	
			Murrieta Auto Mall is a master-planned auto mall offering prime freeway visibility and space for up to six dealers. It is located at Interstate 15 and Date Street, via Jefferson Avenue.		Mike Strode	Lee & Associates	City of Murrieta	
			Murrieta Marketplace will have about 500,000 square feet of buildable space available on the 55-acre site. The community shopping center will open Fall 2009. Located at the northwest corner of Clinton Keith Road and Winchester Road.		Peter Moersch	Regency Centers	City of Murrieta	
			Murrieta Plaza's Phase 2 is the final 100,000 square feet of the Murrieta Plaza center, located at Murrieta Hot Springs Road and the I-15/I-215 Interchange. The final phase of this project will be completed by Fall 2008.		Steve Lewis	Terramar Retail Centers	City of Murrieta	
			Murrieta Spectrum, located at 25115 to 25175 Madison Avenue.		Beverly Search	Grubb & Ellis/WestMar, Inc.	City of Murrieta	
			Antelope Square is an 84,000 square foot retail shopping center located at the southeast corner of Scott and Antelope Roads at Interstate 215.		Brian Bielatowicz	Lee & Associates	City of Murrieta	
			Bella Piazza includes 28,209 square feet of prime upscale retail. Located west of Jefferson Avenue, south of Kalmia, and north of Juniper Streets.		Beverly Search	Grubb & Ellis/WestMar, Inc.	City of Murrieta	
			Cascada Del Sol is approximately 78,000 square feet for retail. Groundbreaking is estimated for the third quarter of 2008. Located at Madison Avenue and Interstate 15.		Beverly Search	Grubb & Ellis/WestMar, Inc.	City of Murrieta	
			Date Street Plaza consists of 16,986 square feet of retail space highlighted by upscale architecture and attractive landscaping. Located at the northeast corner of Date Street and Margarita Road.		Brian Bielatowicz	Lee & Associates	City of Murrieta	

Table 3.17-7 City of Murrieta - Current Planning Projects

Activity Number	Date Submitted	Status	Description	Planner	Technician	Owner	Source	Received Date
			French Valley Marketplace is a planned 65,500 square foot shopping center located at the southwest corner of Winchester Road and Clinton Keith Road. It will include retail shops, financial and restaurant pads, a service station, tire store, and office space.		Beverly Search	Grubb & Ellis/WestMar, Inc.	City of Murrieta	
			Homecenter Murrieta contains more than 230,000 square feet of freeway showrooms. Located at the southwest corner of I-215 and Los Alamos Road.		Brian Bielatowicz	Lee & Associates	City of Murrieta	
			Murrieta Town Center East offers retail pads/shop spaces ranging from 1,000 to 7,000 square feet. The center is undergoing renovation and two 5,000 square foot build-to-suit or ground lease pads are available. Located at Murrieta Hot Springs Road, east of I-215.		Charles Cheng	Triumshire Corporation	City of Murrieta	
			The Orchard - Stone Creek is a 47-acre, 430,000 square foot planned community shopping center located at the intersection of Interstate 215and Clinton Keith Road.		Hil Mercado	CB Richard Ellis	City of Murrieta	
			Village Walk Plaza is a 50-acre commercial project. Phase I is complete. Phase II includes 312,000 square feet of retail with freeway visibility. Located at the northwest corner of I-15 and Kalmia Street.		Art Pearlman Corp.	Arthur Pearlman Corp.	City of Murrieta	
			Westside Marketplace is a proposed 384,773 square foot retail center. It is expected to open in the first quarter of 2009. The project is located at Jefferson Avenue and the north side of Guava Street.		Beverly Search	Grubb & Ellis/WestMar, Inc.	City of Murrieta	

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Rush, Adam. 2009. Principal Planner. Riverside County, California. Personal communication: email exchange with Luke Shillington, Ecology and Environment, Inc. October 13.

Watts, Dennis. 2009. Senior Planner. Murrieta, California. Personal communication: email exchange with Luke Shillington, Ecology and Environment, Inc. October 6.

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4.0 List of Preparers, Agencies, and Persons Contacted

A consultant team headed by Ecology and Environment, Inc. prepared this document under the direction of the California Public Utilities Commission. The preparers and technical reviewers of this document are presented below.

4.1 Lead Agency

California Public Utilities Commission, Energy Division

- Iain Fisher, Project Manager

4.2 Project Management and Document Production

Ecology and Environment, Inc.

- Karen Ladd, Project Manager
- Erica Brown, Environmental Planner
- Erec DeVost, Environmental Planner
- Tom Dildine, Visual Resources Specialist
- Christy Herron, Environmental Planner
- Louise Flynn, Senior Environmental Planner
- Dru Krupinsky, Greenhouse Gas Specialist
- Deborah Linton, Graphic Design
- Christine McCollum, Cultural Resources Specialist and Planner
- Ilja Nieuwenhuizen, Biologist
- Rob Peterson, Technical Editor and Planner
- Mark Roeder, Paleontologist
- Dale Schneeberger, Geologist
- Natalie Seitz, Environmental Planner
- Luke Shillington, Environmental Planner
- Tom Siener, Noise Specialist
- Jennifer Siu, Biologist
- Paul VanKerkhove, Air Quality Specialist
- Silvia Yanez, Project Engineer and Planner
- Kim Zuppiger, Environmental Planner

4.3 Persons Contacted

- Jeff Crain, Biologist, BonTerra Consulting, Inc.
- John Guerin, Riverside County Airport Land Use Commission
- Bob Johnson, Assistant City Manager, City of Temecula, California
- Leslie MacNair, California Department of Fish and Game
- Matt Peters, City Planner, Temecula, California
- Kathleen Pollett, U.S. Fish and Wildlife Service
- Adam Rush, Principal Planner, County of Riverside, California

- Debbie Ubnoske, Director of Planning, City of Temecula, California
- Dennis Watts, Senior Planner, City of Murrieta, California

5.0 Mitigation Monitoring, Reporting, and Compliance Plan

The purpose of this Mitigation Monitoring, Reporting, and Compliance Plan (MMRC Plan) is to ensure effective implementation of the project design features (PDFs) and mitigation measures required by the California Public Utilities Commission (CPUC) and that Southern California Edison (the applicant) has agreed to implement as part of the Triton Substation Project (the project). The MMRC Plan, which is outlined in Table 5-1, includes the:

- PDFs and mitigation measures that the applicant is required to implement as part of the project;
- California Environmental Quality Act (CEQA) checklist questions to which the PDFs and mitigation measures apply;
- Monitoring requirements; and
- Timing for implementation of the PDFs and mitigation measures.

A CPUC-designated environmental monitor (or monitors) will monitor construction of the project to ensure full implementation of each PDF and mitigation measure. In all instances where non-compliance occurs, the CPUC's designated environmental monitor will issue a warning to the construction foreman and the applicant's project manager. Continued non-compliance will be reported to the CPUC's designated project manager. Any decisions to halt work due to non-compliance will be made by the CPUC. The CPUC-designated environmental monitor will keep a record of any incidents of non-compliance with mitigation measures, PDFs, or other conditions of project approval. Copies of these documents will be supplied to the applicant and the CPUC.

With full implementation of the PDFs and mitigation measures listed in Table 5-1, all project permitting requirements, and all applicable federal, state, and local regulations, each potentially significant impact identified in this Initial Study (IS) would be avoided or reduced to less than significant levels.

Variances

The CPUC along with its designated environmental monitor will ensure that any *project variance*—change to the project that deviates from how it was described in the IS or Proponent's Environmental Assessment—or deviation from the procedures identified under the MMRC Plan is consistent with CEQA requirements. No project variance will be approved by the CPUC if it creates new significant impacts. Variances will be strictly limited to minor project changes that do not trigger additional permit requirements; do not increase the severity of an impact or create a new impact; and that clearly and strictly comply with the intent of the mitigation measures listed in Table 5-1.

If a proposed change to the project has the potential for creating significant environmental effects, it will be evaluated to determine whether supplemental CEQA review is required. Any variance from the approved project, adopted mitigation measures, PDFs, and correction of such deviation, will be reported immediately to the CPUC and the environmental monitor for their review and approval. In some cases, a variance may also require approval by a CEQA responsible agency.

Dispute Resolution

The following procedure will be observed for dispute resolution:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted Mitigation Monitoring Plan.
- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the Mitigation Monitoring Plan cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days or receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.
- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the CPUC via a procedure to be specified by the Commission.

Parties may also seek review by the CPUC through existing procedures specified in the CPUC Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
3.1 Aesthetics			
c ould the project substantially de rade the e istin visual character or uality of the site and its surroundin s	PDF AES-1: Substation Setback. Final siting of the substation within the property is subject to final design. The substation walls will be set back a minimum of 195 feet from the centerline of Nicolas Road and 50 feet from the centerline of Calle Medusa.	Triton Substation design meets PDF AES-1 specifications.	During construction
	PDF AES-2: Low-Profile Substation Equipment. The substation will be designed as a low-profile substation. Low-profile design substations have smaller and shorter equipment that also reduces the overall area of the substation to approximately 81 percent of high-profile design stations.	Triton Substation design meets PDF AES-2 specifications.	During construction
	PDF AES-5: Substation Block Wall. The substation facility will be enclosed within an 8-foot high block wall for screening. The City of Temecula will approve the final design of the block wall, which will be consistent with community standards.	The City of Temecula will approve the final design of the block wall, which will be consistent with community standards. Triton Substation design meets other PDF AES-5 specifications.	Prior to and during construction
	PDF AES-6: Substation Landscaping. The City of Temecula will approve the final design plan for landscaping around the perimeter of the substation facility. Landscaping will be designed to screen the substation and create a composition that relates to its surroundings. Landscaping will use native, drought-tolerant vegetation in accordance with city landscaping guidelines.	The City of Temecula will approve the final design plan for landscaping around the perimeter of the substation facility. Triton Substation design meets other PDF AES-6 specifications.	Prior to and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
d ould the project create a new source of substantial li ht or lare which would adversely affect day or ni httime views in the area	PDF AES-3: Substation Lighting Control. The substation lighting will be designed to be controlled by switch so that it can be turned on only when required for nighttime emergency repairs. The lighting will be directed downward and shielded to eliminate offsite light spill at times when the lighting might be in use. PDF AES-4: Non-Reflective Finish. Equipment within the substation will have a dull, gray non-reflective finish to minimize reflectivity and to make it appear to recede into the backdrop. Non-specular subtransmission cable will be installed for the new subtransmission line loop-in to minimize conductor reflectivity. Tubular steel poles (TSPs) will be galvanized steel; the poles will be gray and non-reflective. PDF AES-5: Substation Block Wall. See above. PDF AES-6: Substation Landscaping. See above.	Triton Substation design meets PDF AES-3 specifications. Triton Substation design meets PDF AES-4 specifications.	During construction During construction
3.2 Agriculture			
	No applicable PDFs or mitigation measures.		
3.3 Air Quality and Greenhouse Gases			
	No applicable PDFs or mitigation measures.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
3.4 Biological Resources			
a ould the project have a substantial adverse effect, either directly or throu h habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or re ional plans, policies, or re ulations, or by the California Department of ish and Game or U ish and ildlife ervice	Special Status Plants PDF BIO-1: Pre-Construction Surveys. Pre-construction biological clearance surveys will be performed by a qualified biologist to minimize impacts on special status plants and wildlife species. A clearance survey is a one-time survey conducted within 30 days of any ground disturbing work to determine if any special status species are present within the construction area. Pre-construction clearance surveys will be conducted for burrowing owls within 30 days of any construction-related activities (see PDF BIO-7). A pre-construction nesting bird survey will be conducted within one week prior to ground disturbing activities should construction work occur during the general nesting season (February 15 – August 31) (see PDF BIO-6). If any special status plants or wildlife species are located during clearance surveys, a qualified biologist will be present during construction to monitor activities and implement appropriate measures to avoid any impacts on the special status species (e.g., flag and avoid, utilization of construction fencing to establish buffers). If avoidance cannot be maintained, the applicant will consult with appropriate agencies. PDF BIO-2: Biological Resources Worker Environmental Awareness Program. The applicant will develop a Worker Environmental Awareness Program (WEAP), and all construction crews and contractors will be required to participate in WEAP training prior to starting work on the project. The applicant will	Pre-construction biological clearance surveys will be performed by a qualified biologist. A clearance survey is a one-time survey conducted within 30 days of any ground disturbing work. A pre-construction nesting bird survey will be conducted within one week prior to ground disturbing activities should construction work occur during the general nesting season, February 15 – August 31, (PDF BIO-6). See additional requirements in PDF BIO-1. The applicant will maintain a record of all personnel trained under WEAP. Training participants will receive a sticker for their hard hat (see also PDF CUL-1). See additional requirements in PDF BIO-2.	30 days prior to construction, during construction, and during nesting season Prior to construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	maintain a record of all personnel trained. Training participants will receive a sticker for their hard hat. New construction personnel added following the initial training may be trained using a video recording of the live training. The WEAP training will include a review of the special status species and other sensitive resources that could exist in the project area, the locations of the sensitive biological resources, their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. Additionally, personnel will be trained on situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources be found during construction such as an active nest). If sensitive resources are found, the qualified biologist will provide guidelines for the personnel to follow to avoid impacts on them. If it is determined that construction activity cannot avoid areas where sensitive biological resources are present, the qualified biologist will consult with the CDFG and/or USFWS, as necessary. PDF BIO-3: Biological Monitors. Biological monitors will be used during construction within any areas found to contain sensitive biological resources. The monitors will be responsible for ensuring that impacts on special status species, their associated habitat, and/or unique resources are avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities need to be restricted to protect special status plant and wildlife species. These restricted areas will be monitored to	Where appropriate, monitors will flag the boundaries of areas where activities need to be restricted to protect special-status plant and wildlife species. See additional requirements in PDF BIO-3.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	ensure their protection during construction. If wildlife resources not considered to have special status are found within the project area during construction, the monitor will relocate the individual out of the project area.		
	PDF BIO-5: Best Management Practices (BMPs). Construction and operation crews will use BMPs in accordance with the Storm Water Pollution Prevention Plan (SWPPP). These measures will be identified in the SWPPP prior to construction and incorporated into the construction and maintenance operations. BMPs may address issues such as preserving existing vegetation, controlling sediment, managing stockpiles, and minimizing erosion.	See requirements in PDF BIO-5.	During construction and operations
	PDF BIO-8: Special Status Plants. For any construction area that has the potential to support special status plants, protocol-level botanical surveys will be repeated prior to construction and during the blooming season. Alternatively, the applicant may choose to become a Participating Special Entity in the Western Riverside County Multiple Species Habitat Conservation Plan. The applicant will consult with the CDFG and/or USFWS if it is determined that any special status plant species may be impacted by the project. If possible, the species will be relocated to a suitable replacement site. This may involve transplantation and/or seed collection. Prior to establishing a replacement site, a qualified biologist will prepare a monitoring and reporting plan that will be implemented. The plan will be approved by the CDFG and/or USFWS prior to implementation. The biologist will have full authority to suspend any operation which is, in	For any construction area that has the potential to support special status plants, protocol-level botanical surveys will be repeated prior to construction and during the blooming season. See additional requirements in PDF BIO-8.	Prior to construction and during the blooming season

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	the qualified biologist's opinion, not consistent with the monitoring and reporting plan.		
	MM BIO-1: Limit Removal of Native Vegetation Communities. The applicant will avoid removal of intact coastal sage scrub, as determined by the onsite qualified biologist/biological monitor.	See requirements in MM BIO-1.	During construction
	MM BIO-2: Best Management Practices. BMPs to be prescribed by the Stormwater Pollution Prevention Plan (SWPPP) (PDF BIO-5) shall include but are not limited to the following: • The applicant will use public roads and pre-existing, established routes for access to work areas for installation of the telecommunications lines. • Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel within the proposed project footprint. • The applicant shall not stockpile brush, loose soils, excavation spoils, or other similar debris material within sensitive habitats. • The applicant will ensure proper handling of invasive native and non-native plant species removed during construction to prevent sprouting or regrowth.	See requirements in MM BIO-2.	During construction
	MM BIO-3: Protection of Special Status Plant Species. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-8. The applicant will conduct protocol-level botanical surveys within areas that contain habitat suitable to support special status	See requirements in MM BIO-3 and PDF BIO-8.	Prior to construction and during the blooming season

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	plant species during the blooming season. These surveys will occur prior to construction to determine presence or absence of special status plant species of concern in areas where construction activity is planned. Desktop evaluation of soil types within the project area will be conducted prior to the pre-construction botanical survey to determine if suitable soils for special status plants are present. Special status plant species of concern include, but are not limited to, Munz's onion, San Diego ambrosia, Plummer's mariposa lily, intermediate mariposa lily, long-spined spineflower, and round-leaved filaree. Construction can occur within the area if these surveys show special status plants to be absent there. Special Status Wildlife *Coastal California Gnatcatcher* PDF BIO-1: Pre-Construction Surveys. See above. PDF BIO-2: Biological Resources Worker Environmental Awareness Program. See above. PDF BIO-3: Biological Monitors. See above. PDF BIO-5: Best Management Practices. See above. PDF BIO-6: Nesting Birds. To minimize potential impacts on selected nesting special status birds, raptors, or other MBTA bird species,	All construction within the buffer zone to take place during the non-breeding season only. If vegetation trimming, vegetation clearing, and/or ground disturbance must take place during nesting	Prior to and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	planned vegetation trimming and/or clearing will take place during the non-breeding season (September 1 – February 14), to the extent feasible. This will discourage the species from nesting within the work area. Trees, shrubs, or other vegetation occupied that would provide suitable structure for nesting would be removed. If vegetation trimming, vegetation clearing, and/or ground disturbance must take place during nesting season (February 15 – August 31), pre-construction nest surveys will be conducted by a biologist prior to trimming, clearing, and ground disturbance. Pre-construction nest surveys will be conducted to a distance of 500 feet from construction areas at the substation site and the subtransmission line loop-in and 100 feet from the centerline of the remainder of the telecommunications route. If the biologist finds an active nest within or adjacent to the construction area and determines that there may be impacts on the nest, the biologist will delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the type of construction activity. Only construction activities (if any) approved by the biologist will take place within the buffer zone until the nest is vacated. If nests are found and they cannot be avoided by project activities, or if work is scheduled to take place in close proximity to an active nest, the applicant will coordinate with the CDFG and USFWS and obtain verbal or written concurrence prior to moving the nest. PDF BIO-10: Noise. If the construction noise levels are expected to potentially cause substantial impacts on wildlife species, as determined by a qualified biologist, proposed	season (February 15 – August 31), pre-construction nest surveys will be conducted. Pre-construction nest surveys will be conducted to a distance of 500 feet from construction areas at the substation site and the subtransmission line loop-in and 100 feet from the centerline of the remainder of the telecommunications route. See additional requirements in PDF BIO-6. See requirements in PDF BIO-10.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	noise-generating activities shall incorporate temporary features such as setbacks to minimize the effects of noise on areas adjacent to the selected site. MM BIO-1: Limit Removal of Native Vegetation Communities. See above. MM BIO-2: Best Management Practices. See above. MM BIO-4: Protection of Special Status Wildlife Species. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-1 and PDF BIO-3. If avoidance cannot be ensured (e.g., seasonal construction restrictions, passive relocation of the animal from the disturbance area, adjusting project footprint), the applicant will conduct protocol-level surveys prior to construction to determine presence or absence of special status wildlife species of concern in areas where suitable habitat occurs or is potentially present within the project area. Wildlife species of concern include, but are not limited to, coastal California gnatcatcher, loggerhead shrike, white-tailed kite, burrowing owl, Quino checkerspot butterfly, orange-throated whiptail, northern red-diamond rattlesnake, and the spotted bat. The protocol-level surveys will be conducted in areas where project activities could affect the species or their associated habitat including, as applicable, the substation property, the subtransmission line loop-in route, locations of wooden pole removal and new tubular steel pole installation, the Canine Substation, the telecommunications routes, other	See requirements in MM BIO-4, PDF BIO-1 and PDF BIO-3.	Prior to and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	areas where there may be ground disturbance, and areas where noise may affect wildlife species. *uino chec erspot butterfly* PDF BIO-1: Pre-Construction Surveys. See above. PDF BIO-5: Best Management Practices. See above. MM BIO-1: Limit Removal of Native Vegetation Communities. See above. MM BIO-2: Best Management Practices. See above. MM BIO-5: Protection of Quino Checkerspot Butterfly. In addition to PDF BIO-1 and PDF BIO-3, the Quino checkerspot butterfly will be further protected from potential project impacts by the following: • The applicant will conduct pre-construction botanical surveys that will include observation for and identification of primary host plants for the Quino checkerspot butterfly. These plants include plantain and white snapdragon, and may occur in association with coastal sage scrub and annual grasslands. • The applicant will flag and avoid all project activities in any areas where potential host plant populations are found during pre-construction surveys.	See requirements in MM BIO-5, PDF BIO-1, and PDF BIO-3.	Prior to and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	hite-tailed ite		
	PDF BIO-1: Pre-Construction Surveys. See above.		
	PDF BIO-3: Biological Monitors. See above.	See requirements in PDF BIO-4.	During construction
	PDF BIO-4: Avian Protection. All transmission, subtransmission, and distribution structures will be designed to be avian-safe in accordance with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee 2006).		
	PDF BIO-6: Nesting Birds. See above.	See requirements in PDF BIO-9.	During construction
	PDF BIO-9: Lighting. Night lighting will be directed away from open spaces adjacent to the substation site in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Shielding will be incorporated in the final project design to ensure ambient lighting is not increased. If construction lighting is needed, directed shielding will be used.		
	PDF BIO-10: Noise. See above.		
	urrowin wl		
	PDF BIO-6: Nesting Birds. See above.	A qualified biologist will survey within 500 feet of construction areas for the presence of any active owl burrows within 30 days prior to the onset of construction activities.	30 days prior to construction
	PDF BIO-7: Burrowing Owls. Pre-construction burrowing owl surveys will be conducted in all areas where there will be ground disturbance to determine presence or absence. A qualified biologist will survey within 500 feet of construction	A 50 meter (160 foot) buffer will be maintained from active burrows	

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	areas for the presence of any active owl burrows within 30 days prior to the onset of construction activities. If no burrows are found, no further action will be required. If unoccupied burrows are found, the qualified biologist will immediately close (collapse) them to prevent subsequent occupancy. Any active burrow found during survey efforts will be mapped on the construction plans. If nesting pairs are found, adequate buffers shall be established around occupied burrows. Any encroachment into the buffer area around the active burrow will be allowed only if the biologist determines that the proposed activity will not disturb the nest occupants. A 50 meter (160 foot) buffer will be maintained from active burrows during the non-breeding season. The nest site will be monitored by a qualified biologist, and when the owl is away from the nest, the biologist will either actively or passively relocate the burrowing owl. The biologist will then close (collapse) the burrow to prevent re-occupancy. If nesting activity is present at an active burrow, the active site will be protected until nesting activity has ended. A 75 meter (250 foot) buffer will be maintained from active burrows during the nesting season (February 15 – August 31). Construction can proceed when the qualified biologist has determined that fledglings have left the nest. If active burrows cannot be avoided, an appropriate relocation strategy would be developed in conjunction with the CDFG and may include: collapsing burrows outside of nesting season; and the use of exclusionary devices to reduce impacts to the burrowing owl.	during the non-breeding season. A 75 meter (250 foot) buffer will be maintained from active burrows during the nesting season (February 15 – August 31). See additional requirements in PDF BIO-7.	

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	MM BIO-5: Protection of Quino Checkerspot Butterfly. See above. MM BIO-6: Burrowing Owl Mitigation and Compensation. This mitigation measure enhances and clarifies measures the applicant will implement under PDF BIO-7. If impacts on the burrowing owl and/or their habitat (i.e., occupied burrows) are unavoidable, the applicant shall develop and implement a Burrowing Owl Compensation Plan, as approved by the Wildlife Agencies, that is consistent with mitigation guidelines as outlined in the *California Burrowing Owl Consortium Protocol*. *Raptors and Nestin irds Protected under the T* PDF BIO-1: Pre-Construction Surveys. See above. PDF BIO-6: Nesting Birds. See above. *ran e-throated whiptail and Northern red-diamond rattlesna e* PDF BIO-1: Pre-Construction Surveys. See above. MM BIO-4: Protection of Special Status Wildlife Species. See above. MM BIO-7: Prevent the Entrapment of Wildlife. At the end of each workday during construction, the applicant will cover all open trenches or excavations to prevent the entrapment of wildlife (e.g., reptiles and small mammals). The applicant	See requirements in MM BIO-6 and PDF BIO-7. See requirements in MM BIO-7.	During construction During construction at the end of each workday

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	will maintain fencing around the covered excavations at night. The applicant's biological monitor will clear open trenches for wildlife at the end of each day, and again prior to resuming work on the trench.		
b ould the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or re ional plans, policies, re ulations or by the California Department of ish and Game or U ish and ildlife ervice	PDF BIO-2: Biological Resources Worker Environmental Awareness Program. See above. PDF BIO-3: Biological Monitors. See above. PDF HYDRO-1 through PDF HYDRO-10. See below. MM BIO-8: Construction Work will be Performed Outside the Bed, Banks, and Riparian Zones of Drainages, Wetlands or Water Bodies. The applicant's construction crews will not cross non-culverted drainages with vehicles, nor conduct construction activities or placement of equipment or supplies within the bed, bank or riparian zone of any drainage, wetland, or water body. If construction activities require non-culverted drainages to be crossed, crews will traverse them by foot only, and use pre-existing, established access roads that circumvent non-culverted drainages for vehicle travel.	See requirements in MM BIO-8.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
c ould the project have a substantial adverse effect on federally protected wetlands as defined by ection 0 of the Clean ater ct (includin , but not limited to, marsh, vernal pool, coastal, etc) throu h direct removal, fillin , hydrolo ical interruption, or other means	PDF BIO-1: Pre-Construction Surveys. See above. PDF BIO-2: Biological Resources Worker Environmental Awareness Program. See above. PDF BIO-3: Biological Monitors. See above. PDF BIO-5: Best Management Practices. See above. MM BIO-8: Construction Work will be Performed Outside the Bed, Banks, and Riparian Zones of Drainages, Wetlands or Water Bodies. See above.		
d ould the project interfere substantially with the movement of any native resident or mi ratory fish or wildlife species or with established native resident or mi ratory wildlife corridors, or impede the use of native wildlife nursery sites	MM BIO-1: Limit Removal of Native Vegetation Communities. See above. MM BIO-8: Construction Work will be Performed Outside the Bed, Banks, and Riparian Zones of Drainages, Wetlands or Water Bodies. See above.		
f ould the project conflict with the provisions of an adopted abitat Conservation Plan, Natural Community Conservation Plan, or other approved local, re ional, or state habitat conservation plan	MM BIO-3: Protection of Special Status Plant Species. See above. MM BIO-4: Protection of Special Status Wildlife Species. See above.		
3.5 Cultural Resources			
a ould the project cause a substantial adverse chan e in the si nificance of a historical resource as defined in ection 1 0	PDF CUL-1: Cultural Resources Worker Environmental Awareness Program Training. Prior to beginning construction, the applicant will develop WEAP training for any cultural resources encountered during construction. All construction	The applicant will maintain a record of all personnel trained under WEAP. Training participants will receive a sticker for their hard hat (see also PDF BIO-2). See additional	Prior to construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	crews and contractors will be required to receive the training prior to starting work on the project. The applicant will maintain a record of all personnel trained. Training participants will receive a sticker for their hard hat. New construction personnel added following the initial training may be trained using a video recording of the live training. The training will comply with all applicable federal, state, and local cultural resource guidelines and regulations, including California Health and Safety Code Sections 5097.98, 5097.99 and 7050, and CEQA Guidelines §§15064.5(e) and (f). The training will be developed with input from interested Native American groups. At a minimum, the training will cover: • Designation and responsibilities of archaeological monitors • The designation, responsibilities, and participation of Native American observers • Authority to halt construction if cultural resources or human remains are uncovered • Protection of human remains while awaiting recommendations from most likely descendants (as designated by the NAHC) • Treatment of human remains as recommended by Native American most likely descendants (as designated by the NAHC) • Data recovery plans in the event that avoidance of cultural resources is infeasible due to engineering constraints • Cultural resource avoidance and preservation • Reporting of monitoring, discoveries of	requirements in PDF CUL-1.	

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	cultural resources and/or human remains, and mitigation • Curation of archaeological material not associated with human remains		
	PDF CUL-2: Historic and Archaeological Monitoring. A qualified archaeologist will conduct full-time monitoring of all areas of the project where ground disturbing activities would occur. The archaeological monitor will have a working knowledge of the project area and will be competent to identify the range of cultural resources known to exist in the vicinity of the project. The monitor will have the authority to temporarily stop construction activities to inspect areas where ground disturbance has revealed potential cultural resources. The applicant will suspend construction activities until the archaeologist has inspected the discovery and determined any required or recommended treatment for the resource(s).	A qualified archaeologist will conduct full-time monitoring of all areas of the project where ground disturbing activities would occur. See additional requirements in PDF CUL-2.	During construction
	PDF CUL-4: Native American Consultation and Monitoring. The applicant will consult with all interested Native American groups, per the recommendation of the Native American Heritage Commission, prior to project construction. The tribes will be notified at least 30 days prior to ground-disturbing construction activities and invited to voluntarily observe ground-disturbing activities and offer any recommendations to the qualified archaeological monitor for the project. The archaeological monitor will order construction work to temporarily stop if cultural resources are identified during construction activities (PDF CUL-2). The qualified archeological monitor will consult with the Native American observers in	The applicant will consult with all interested Native American groups. The tribes will be notified at least 30 days prior to ground-disturbing construction activities and invited to voluntarily observe ground-disturbing activities and offer any recommendations to the qualified archaeological monitor for the project. See additional requirements in PDF CUL-4.	30 days prior to construction and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	determining the potential significance of the resource and any required or recommended treatment. The most likely descendant as determined by the Native American Heritage Commission will be consulted for the treatment, recovery, and curation of any Native American ceremonial artifacts or items of cultural patrimony discovered. MM CUL-1: Unanticipated Discovery. If unanticipated resources are discovered during construction monitoring that are identified as potential historical or archaeological sites, the qualified archaeological monitor will suspend all construction activities in the vicinity of the find to evaluate the resource. The evaluation may require a subsurface testing and evaluation program for cultural resources. If remains prove to be significant and site avoidance cannot be implemented through project redesign, the applicant will implement a data recovery program to mitigate impacts. If potential paleontological resources are discovered during construction, the qualified paleontological monitor will suspend all construction activities in the vicinity of the potential resource to examine the resource and determine the proper method to avoid adverse effects on the resource. At the paleontological monitor's discretion, the area in the vicinity of the potential resource may be flagged for avoidance or the potential resource may be removed from the site by plaster jacketing, taking a sample of the potentially fossiliferous formation, or, if necessary, excavation. Recovered specimens that are determined to be important	If unanticipated resources are discovered during construction monitoring that are identified as potential historical or archaeological sites, the qualified archaeological monitor will suspend all construction activities in the vicinity of the find to evaluate the resource. See additional requirements in MM CUL-1.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	paleontological resources will be prepared to the point of curation, including the washing of sediments to recover small invertebrates or vertebrates, and stabilized to mitigate impacts. In the event that recovered specimens are determined to be important paleontological resources, the applicant will prepare and execute a written repository agreement with an established, accredited museum repository, and all important paleontological specimens will be curated. To document that adverse impacts on paleontological resources were mitigated, the applicant will prepare a report of findings with an itemized inventory of specimens and submit the report to the CPUC along with confirmation of the curation of recovered specimens into an established, accredited museum repository.		
b ould the project cause a substantial adverse chan e in the si nificance of an archaeolo ical resource pursuant to ection 1 0	PDF CUL-1: Cultural Resources Worker Environmental Awareness Program Training. See above. PDF CUL-2: Historic and Archaeological Monitoring. See above. PDF CUL-4: Native American Consultation and Monitoring. See above. MM CUL-1: Unanticipated Discovery. See above.		
c ould the project directly or indirectly destroy a uni ue paleontolo ical resource or site or uni ue eolo ic feature	PDF CUL-5: Paleontological Monitoring and Stop Work. A qualified paleontologist will conduct a ground survey, at least 30 days prior to any ground disturbance, to assess if there are any paleontological resources present on the ground surface. If paleontological resources are present on the ground surface, a preconstruction recovery of fossils will be conducted. A	A qualified paleontologist will conduct a ground survey, at least 30 days prior to any ground disturbance, to assess if there are any paleontological resources present on the ground surface. The paleontological monitor will have	30 days prior to construction and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	paleontological monitor will be present in areas where the Pauba Formation is at the surface or may be encountered in subsurface excavations. The paleontological monitor will have the authority to temporarily stop construction activities to inspect any potentially significant paleontological discovery and determine treatment to reduce potentially significant impacts on paleontological resources, including recovery of the resource. MM CUL-1: Unanticipated Discovery. See above.	the authority to temporarily stop construction activities to inspect any potentially significant paleontological discovery and determine treatment to reduce potentially significant impacts on paleontological resources, including recovery of the resource.	
d ould the project disturb any human remains, includin those interred outside of formal cemeteries	PDF CUL-1: Cultural Resources Worker Environmental Awareness Program Training. See above. PDF CUL-3: Human Remains Stop Work. If human remains are encountered work will stop so that no further disturbance will occur until the Riverside County Coroner and a qualified archaeologist have assessed the remains, per California Health and Safety Code Section 7050.5. Further, pursuant to California Public Resources Code Section 5097.98(b), the remains will be left in place and free from disturbance and no work will occur within 15 meters of the human remains until the Riverside County Coroner has conducted a formal evaluation of the remains. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission will be contacted in accordance with the procedures outlined in CEQA Guideline §§15064.5(e). In compliance with California Public Resources Code Section 5097.98, remains determined to be Native American will be left in place and free from	If human remains are encountered work will stop so that no further disturbance will occur until the Riverside County Coroner and a qualified archaeologist have assessed the remains. See additional requirements in PDF CUL-3.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	disturbance until a final decision as to their treatment and disposition has been made. Additionally, pursuant to the specific exemption set forth in California Government Code §6452(r), the location of Native American remains will not be disclosed to the public. The applicant will engage in consultations with the Native American Heritage Commission designated most likely descendant and consider his or her recommendations concerning the treatment of remains.		
3.6 Geology and Soils			
a ould the project e pose people or structures to potential substantial adverse effects, includin the ris of loss, injury, or death involvin *i) Rupture of a nown earth ua e fault, as delineated on the most recent l uist-Priolo Earth ua e ault onin ap issued by the tate Geolo ist for the area or based on other substantial evidence of a nown fault Refer to Division of ines and Geolo y pecial Publication 2*	PDF GEO-2: Geotechnical Study. Prior to final design of substation facilities and pole foundations, a geotechnical study will be performed to identify site-specific geologic conditions and potential geologic hazards. The geotechnical study will be performed at the substation site and in areas where poles will be placed. The study will be performed by professional civil or geotechnical engineers or engineering geologists licensed in the State of California and will provide appropriate design and construction recommendations that will be incorporated into the design of the project to reduce potential impacts from geologic hazards or soil conditions.	Prior to final design of substation facilities and pole foundations, a geotechnical study will be performed to identify site-specific geologic conditions and potential geologic hazards. See additional requirements in PDF GEO-2.	Prior to construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
ii) tron seismic round sha in	PDF GEO-1: Seismic Design. For new substation construction, specific requirements for seismic design will be per the requirements of the Institute of Electrical and Electronics Engineers (IEEE) 693 *Recommended Practices for Seismic Design of Substations*. PDF GEO-2: Geotechnical Study. See above.	Triton Substation design meets PDF GEO-1 specifications.	During and after construction
iii) eismic-related round failure, includin li uefaction	PDF GEO-1: Seismic Design. See above. PDF GEO-2: Geotechnical Study. See above.		
b ould the project result in substantial soil erosion or the loss of topsoil	PDF BIO-5: Best Management Practices. See above. PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See below. MM GEO-1: Disposal of Excess Excavated Materials. Excess excavation materials that are not used to backfill excavated areas shall be transported and disposed of offsite at an approved facility. PDF HAZ-2: Wood Pole Removal. See below.	See requirements in MM GEO-1.	During construction and decommissioning
c ould the project be located on a eolo ic 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 spreadin , subsidence, li uefaction or collapse	PDF GEO-2: Geotechnical Study. See above.		
d ould the project be located on e pansive soil, as defined in Table 1 -1- of the Uniform uildin Code (1), creatin substantial	PDF GEO-2: Geotechnical Study. See above.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
ris s to life or property			
3.7 Hazards and Hazardous Materials			
a ould the project create a si nificant ha ard to the public or the environment throu h the routine transport, use, or disposal of ha ardous materials	PDF HAZ-2: Wood Pole Removal. The wood poles removed during the 115 kV subtransmission line installation will be reused by the applicant, recycled, or disposed of in a licensed Class I hazardous waste landfill. PDF BIO-5: Best Management Practices. See above. PDF HYDRO-2: Hazardous Materials Near Drainages. See below. PDF NOI-1: Construction Equipment Working Order. See below. PDF NOI-2: Hearing Protection for Workers. See below. PDF HYDRO-3: Material Safety Data Sheets. See below. PDF HYDRO-4: Spill Prevention, Control, and Countermeasure (SPCC) Plan. See below. MM HAZ-1: Hazardous Materials Management Practices. The applicant shall undertake the following measures: 1. Prepare and implement a hazardous substance management, handling, storage, disposal, and emergency response plan. 2. Train project personnel in appropriate work practices including spill prevention and response measures.	See requirements in PDF HAZ-2. See requirements in MM HAZ-1.	During construction and decommissioning During construction and decommissioning

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	3. Contain all hazardous materials at work sites and properly dispose of all such materials. a. Hazardous materials shall be stored on pallets within fenced and secured areas and protected from exposure to weather. b. Fuels and lubricants shall be stored only at designated staging areas at least 100 feet from the edge of water bodies. 4. Restrict equipment refueling and lubrication to areas at least 100 feet from stream channels and wetlands. 5. Maintain onsite hazardous material spill kits for small spills. 6. Store sorbent and barrier materials at construction staging areas. Sorbent and barrier materials shall also be used to contain runoff from contaminated areas. 7. During decommissioning of the Canine Substation, protective barriers or other measures will be used to ensure that runoff from an accidental release of oil or other potentially hazardous materials do not enter the storm drainage system. 8. Perform all routine equipment maintenance at a shop or at the staging area and recover and dispose of wastes in an appropriate manner. Remove any vehicles with chronic or continuous leaks from the construction site and repair before returning them to operation. 9. Store shovels and drums at the staging area. If small quantities of soil become contaminated, use shovels to collect the soil and store in drums before proper offsite disposal. Large quantities of contaminated		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	soil may be collected using heavy equipment and stored in drums or other suitable containers prior to disposal. Should contamination occur adjacent to staging areas as a result of runoff, shovels and/or heavy equipment shall be used to collect the contaminated material. Contaminated soil shall be disposed of in accordance with federal and state regulations. *Canine ubstation and Transformer an Decommissionin* PDF UTIL-2: Recycle Waste Materials. See below. PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See below. PDF HYDRO-2: Hazardous Materials Near Drainages. See below. PDF HYDRO-3: Material Safety Data Sheets. See below. PDF HYDRO-4: SPCC Plan. See below. PDF BIO-5: Best Management Practices. See above. MM HAZ-1: Hazardous Materials Management Practices. See above.		
b ould the project create a si nificant ha ard to the public or the environment throu h	PDF BIO-5: Best Management Practices. See above. PDF GEO-1: Seismic Design. See above.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
reasonably foreseeable upset and accident conditions involvin the release of ha ardous materials into the environment	PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See below. PDF HYDRO-2: Hazardous Materials Near Drainages. See below. PDF HYDRO-3: Material Safety Data Sheets. See below. PDF HYDRO-4: SPCC Plan. See below. PDF NOI-1: Construction Equipment Working Order. See below. PDF NOI-2: Hearing Protection for Workers. See below. MM HAZ-1: Hazardous Materials Management Practices. See above.		
c ould the project emit ha ardous emissions or handle ha ardous or acutely ha ardous materials, substances, or waste within one- uarter mile of an e istin or proposed school	PDF BIO-5: Best Management Practices. See above. PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See below. PDF HYDRO-2: Hazardous Materials Near Drainages. See below. PDF HYDRO-3: Material Safety Data Sheets. See below. PDF HYDRO-4: SPCC Plan. See below. PDF NOI-1: Construction Equipment Working		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	Order. See below. PDF NOI-2: Hearing Protection for Workers. See below.		
d ould the project be located on a site that is included on a list of ha ardous materials sites compiled pursuant to Government Code ection 2 and, as a result, would it create a si nificant ha ard to the public or the environment	MM HAZ-2: Contaminated Soil/Groundwater Contingency Plan. The applicant shall develop and implement a plan to address the potential for unearthing or exposing buried hazardous materials or contamination or contaminated groundwater. The plan shall detail the steps that the applicant or its contractor shall take to prevent contamination of soils or other materials offsite, the sampling that would be necessary if contamination is discovered, and the remedial action that would be taken if contamination occurred or is discovered.	The applicant shall develop and implement a plan to address the potential for unearthing or exposing buried hazardous materials or contamination or contaminated groundwater. See additional requirements in MM HAZ-2.	Prior to and during construction
ould the project impair implementation of or physically interfere with an adopted emer ency response plan or emer ency evacuation plan	PDF TT-1: Traffic Control Services. See below. PDF TT-3: Traffic Management. See below. PDF HAZ-4: Traffic Control. The applicant will consult with local and state agencies, including the California Department of Transportation (Caltrans) as applicable, prior to initiation of construction activities that may affect traffic (e.g., equipment delivery necessitating lane closures, pole installation, stringing of conductors, trenching for the telecommunications lines), and will implement appropriate traffic controls to avoid or minimize impacts on traffic.	See requirements in PDF HAZ-4.	Prior to and during construction
h ould the project e pose people or structures to a si nificant ris of loss, injury, or death involvin wildland fires, includin where wildlands are adjacent to urbani ed areas or where	PDF HAZ-5: Fire Prevention and Response Practices. The applicant will implement standard fire prevention and response practices for construction and operation activities to minimize the risk of fire danger, and in the case of fire, provide for immediate suppression and	Triton Substation design and the applicant's standard fire prevention and response practices meet PDF HAZ-5 specifications.	During construction and operations

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
residences are intermi ed with wildlands	notification. The fire prevention and response practices include but are not limited to spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, fire suppression equipment and training requirements, and vegetation clearing. In addition, vehicle parking, storage areas, stationary engine site and welding areas will be cleared of vegetation and flammable materials. Areas used for dispensing or storage of gasoline, diesel fuel or other oil products will be cleared of vegetation and other flammable materials and no smoking will occur in these areas. The substation will be grounded to prevent electric shock and surges that could ignite fires. PDF HAZ-6: Vegetation Clearance. As applicable, the applicant will maintain vegetation clearance during the life of the Triton Substation to reduce the fire hazard potential. Regular maintenance is typically conducted once or twice a year and consists of mowing and hand clearing shrubs.	Triton Substation design and maintenance meets PDF HAZ-6 specifications.	During operations
3.8 Hydrology and Water Quality			
a ould the project violate any water uality standards or waste dischar e re uirements	PDF BIO-5: Best Management Practices. See above. PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. The applicant will apply for a Construction Activities Storm Water General Permit (Order 99-08-DWQ). The requirement is part of the federal National Pollutant Discharge Elimination System (NPDES). As a requirement of the permit BMPs will be developed and set out within a Storm	The applicant will apply for a Construction Activities Storm Water General Permit. See additional requirements in PDF HYDRO-1.	Prior to construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	Water Pollution Prevention Plan (SWPPP). BMPs to be implemented may include, but are not limited to; the use of silt fencing, gravel barriers, and sand bags to protect wetlands and streams as well as minimize erosion and sediment from entering water bodies. Construction crew training will include the protection of water bodies from construction activities. PDF UTIL-1: Notice of Termination. See below. PDF UTIL-2: Recycle Waste Materials. See below. PDF HAZ-2: Wood Pole Removal. See above.		
	PDF HYDRO-2: Hazardous Materials Near Drainages. No oil or hazardous materials storage, staging, use or transfer shall occur within 50 feet of any surface water body, surface drainage, or storm-drain drop inlet. Work vehicles will receive regular engine maintenance and equipment checks to avoid and detect leaks. Construction crew training will include measures to prevent the release or accidental spillage of solid waste, garbage, construction debris, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, and other wastes into water bodies or water sources.	No oil or hazardous materials storage, staging, use or transfer shall occur within 50 feet of any surface water body, surface drainage, or storm-drain drop inlet. See additional requirements in PDF HYDRO-2.	During construction and decommissioning
	PDF HYDRO-4: SPCC Plan. The applicant will prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan that includes the hazardous/non-hazardous materials used during operation.	See requirements in PDF HYDRO-4.	Prior to and during construction and decommissioning

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	MM GEO-1: Disposal of Excess Excavated Materials. See above. MM HAZ-1: Hazardous Materials Management Practices. See above.		
b ould the project substantially deplete roundwater supplies or interfere substantially with roundwater rechar e such that there would be a net deficit in a uifer volume or a lowerin of the local roundwater table level (e , the production rate of pre-e istin nearby wells would drop to a level which would not support e istin land uses or planned uses for which permits have been ranted)	PDF AES-6: Substation Landscaping. See above.		
c ould the project substantially alter the e istin draina e pattern of the site or area, includin throu h 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	PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See above. PDF HYDRO-6: Jurisdictional Areas of Streams and Drainage. No infrastructure associated with the project will be situated within jurisdictional areas of streams and drainages (e.g., channels and banks). Although the proposed telecommunications lines will not cross under any water bodies, poles located on nearby land areas of waterways will be engineered to withstand stresses associated with their proximity to the waterways. PDF HYDRO-7: Facilitate Existing Drainage. The substation and poles will be designed and engineered to facilitate existing drainage patterns	See requirements in PDF HYDRO-6. See requirements in PDF HYDRO-7.	During construction During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	to minimize or avoid any potential impacts from erosion and siltation.		
	PDF HYDRO-8: Drainage Control Features. Drainage control features will be installed where appropriate, as well as other stormwater protection measures included as part of the SWPPP.	See requirements in PDF HYDRO-8.	During construction
	PDF HYDRO-9: Substation Stormwater Drainage. The City of Temecula will approve final design of site drainage, which will be subject to the conditions of the grading permit. Stormwater drainage inside the substation wall will be designed to control sediment and minimize erosion. The internal runoff will be released from the substation by means of surface drainage structures. Drainage from the property will be collected and controlled by surface improvements. The applicant will direct stormwater runoff to the subsurface drainage system.	See requirements in PDF HYDRO-9.	Prior to and during construction
	PDF HYDRO-10: Existing Stormwater Drainage Systems. Substation facilities will be engineered to use existing stormwater drainage systems, including but not limited to Santa Gertrudis Creek or County of Riverside stormwater collection facilities, as applicable. Stormwater discharge to existing drainages shall meet required volumes and quality as prescribed by appropriate state and local authorities.	See requirements in PDF HYDRO-10.	During construction
	PDF BIO-5: Best Management Practices. See above.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
d ould the project substantially alter the e istin draina e pattern of the site or area, includin throu h the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in floodin on- or off-site	PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See above. PDF HYDRO-6: Jurisdictional Areas of Streams and Drainage. See above. PDF HYDRO-7: Facilitate Existing Drainage. See above. PDF HYDRO-8: Drainage Control Features. See above. PDF HYDRO-10: Existing Stormwater Drainage Systems. See above. PDF BIO-5: Best Management Practices. See above.		
e ould the project create or contribute runoff water which would e ceed the capacity of e istin or planned stormwater draina e systems or provide substantial additional sources of polluted runoff	PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See above. PDF HYDRO-2: Hazardous Materials Near Drainages. See above. PDF HYDRO-3: Material Safety Data Sheets. Material Safety Data Sheets will be made available to all site workers for cases of emergency. PDF HYDRO-4: SPCC Plan. See above. PDF HYDRO-8: Drainage Control Features. See above. PDF HYDRO-10: Existing Stormwater Drainage Systems. See above.	See requirements in PDF HYDRO-3.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	PDF BIO-5: Best Management Practices. See above. PDF HAZ-2: Wood Pole Removal. See above. PDF UTIL-2: Recycle Waste Materials. See above.		
f ould the project otherwise substantially de rade water uality	PDF BIO-5: Best Management Practices. See above. PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See above. PDF HYDRO-2: Hazardous Materials Near Drainages. See above. PDF HYDRO-3: Material Safety Data Sheets. See above. PDF HYDRO-4: SPCC Plan. See above. PDF HAZ-2: Wood Pole Removal. See above. PDF UTIL-2: Recycle Waste Materials. See below. MM HAZ-1: Hazardous Materials Management Practices. See above.		
h ould the project place within a 100-year flood ha ard area structures which would impede or redirect flood flows	PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See above. PDF HYDRO-6: Jurisdictional Areas of Streams and Drainage. See above.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	PDF HYDRO-7: Facilitate Existing Drainage. See above. PDF HYDRO-8: Drainage Control Features. See above.		
i ould the project e pose people or structures to a si nificant ris of loss, injury or death involvin floodin , includin floodin as a result of the failure of a levee or dam	PDF HYDRO-6: Jurisdictional Areas of Streams and Drainage. See above.		
j ould the project e pose people or structures to a si nificant ris of inundation by seiche, tsunami, or mudflow	PDF GEO-2: Geotechnical Study. See above.		
3.9 Land Use and Planning			
a ould the project physically divide an established community	PDF AES-1: Substation Setback. See above. PDF AES-2: Low-Profile Substation Equipment. See above. PDF AES-3: Substation Lighting Control. See above. PDF AES-4: Non-Reflective Finish. See above. PDF AES-5: Substation Block Wall. See above. PDF AES-6: Substation Landscaping. See above. PDF TT-1: Traffic Control Services. See below.		
b ould the project conflict with any applicable land use plan, policy, or re ulation of an a ency	PDF AES-1: Substation Setback. See above. PDF AES-2: Low-Profile Substation		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
with jurisdiction over the project (includin , but not limited to the eneral plan, specific plan, local coastal pro ram, or onin ordinance) adopted for the purpose of avoidin or miti atin an environmental effect	Equipment. See above. PDF AES-5: Substation Block Wall. See above. PDF AES-6: Substation Landscaping. See above. PDF LU-1: Public Notification and Complaint Procedures. The applicant will develop and implement the following public notification and complaints procedures: • Fifteen days prior to construction of the Triton Substation, the applicant will provide notice to property and business owners located within 300 feet of the substation site and within 300 feet of the construction activity to be conducted along Nicolas Road, including staging areas and access roads. The notice will describe the location and duration of construction activities, including activities associated with telecommunications lines installation. The applicant will provide the notice by mail and newspaper advertising. • A toll-free number will be established and listed on the notice to receive public concerns or complaints regarding construction activities, including but not limited to dust and noise. The applicant will establish procedures to document, investigate, evaluate, and resolve all project-related complaints. • Procedures for the resolution of legitimate complaints will include suspension of construction activities until other satisfactory measures can be implemented.	Fifteen days prior to construction of the Triton Substation, the applicant will provide notice to property and business owners. A toll-free number will be established. See additional requirements in PDF LU-1.	Prior to and during construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
3.10 Mineral Resources			
	No applicable PDFs or mitigation measures.		
3.11 Noise			
a ould the project result in e posure of persons to or eneration of noise levels in e cess of standards established in the local eneral plan or noise ordinance, or applicable standards of other a encies	PDF NOI-1: Construction Equipment Working Order. Construction equipment will be maintained per manufacture's recommendations to ensure equipment is adequately muffled. A vehicle log will be kept on site to ensure equipment maintenance schedule meets manufacture's standard. Vehicle and equipment idling time will not exceed 5 minutes unless it is necessary for safety reasons or to complete a function of the vehicle (e.g., concrete agitation, or for hydraulic power to a crane or fuel pump).	Vehicle and equipment idling time will not exceed 5 minutes. See additional requirements in PDF NOI-1.	During construction
	PDF NOI-2: Hearing Protection for Workers. Workers will be provided appropriate hearing protection, if necessary.	See requirements in PDF NOI-2.	During construction
	PDF NOI-3: Low-Level Noise Equipment. During final engineering, equipment will be selected and/or barriers will be installed to achieve a level of less than 60 dBA at the closest sensitive receptor, as available and practicable.	Achieve a level of less than 60 dBA at the closest sensitive receptor.	During construction
	PDF LU-1: Public Notification and Complaint Procedures. See above.		
	PDF AES-5: Substation Block Wall. See above.		
	MM NOI-1: Low-noise Substation Equipment and Noise Barriers. The applicant will ensure that substation operational noise levels will not exceed 45 dBA-10-minute L_{eq} at the closest sensitive receptor. This will be achieved either	Substation operational noise levels will not exceed 45 dBA-10-minute L_{eq} at the closest sensitive receptor.	During operations

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	through use of low-noise substation equipment or installation of noise barriers or both.		
c ould the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels e istin without the project	PDF NOI-3: Low-Level Noise Equipment. See above.		
d ould the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels e istin without the project	PDF NOI-1: Construction Equipment Working Order. See above. PDF NOI-2: Hearing Protection for Workers. See above. PDF NOI-3: Low-Level Noise Equipment. See above. PDF LU-1: Public Notification and Complaint Procedures. See above. PDF BIO-10: Noise. See above. MM NOI-1: Low-noise Substation Equipment and Noise Barriers. See above. MM NOI-2: Restricted Work Hours. The applicant will ensure that project construction activities are restricted to daytime hours from 7:00 a.m. to 6:30 p.m. to avoid community nuisances. MM NOI-3: Noise Reduction and Control Practices. The applicant will employ the following noise reduction and control practices during construction: • Construction activities will be phased so that	Project construction activities are restricted to daytime hours from 7:00 a.m. to 6:30 p.m. to avoid community nuisances. See requirements in MM NOI-3.	During construction During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	all equipment is not operating simultaneously. • Construction traffic will be routed away from residences and other sensitive receptors, as feasible. • Noise from back-up alarms (alarms that signal vehicle travel in reverse) in construction vehicles and equipment will be reduced by providing a layout of construction sites that minimizes the need for back-up alarms and using flagmen to minimize time needed to back up vehicles. As feasible, and in compliance with the applicant's safety practices and public and worker safety provisions required in the Occupational Safety and Health Standards for the Construction Industry (29 CFR Part 1926), the applicant may also use self-adjusting, manually adjustable, or broadband back-up alarms to reduce construction noise.		
e or 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 e pose people residin or wor in in the project area to e cessive noise levels	PDF NOI-2: Hearing Protection for Workers. See above.		
3.12 Population and Housing			
	No applicable PDFs or mitigation measures.		
3.13 Public Services			
ould the project result in substantial adverse physical impacts associated with the provision of new or physically altered overnmental facilities, need	PDF TT-1: Traffic Control Services. See below. PDF TT-3: Traffic Management. See below.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
for new or physically altered overnmental facilities, the construction of which could cause si nificant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services *a ire protection*			
b Police protection	PDF HAZ-4: Traffic Control. See above. PDF TT-1: Traffic Control Services. See below. PDF TT-3: Traffic Management. See below. PDF TT-4: Repair Damaged Streets. See below.		
3.14 Recreation			
b ould the project include recreational facilities or re uire the construction or e pansion of recreational facilities which mi ht have an adverse physical effect on the environment	PDF REC-1: Public Notification. In the event short-term restrictions on recreation use of Veterans Park or other parks; existing bike lanes; bike paths; or trails are necessary during project construction, the applicant will notify the public in coordination with Riverside County, the City of Temecula, and the City of Murrieta, as applicable.	See requirements in PDF REC-1.	During construction
3.15 Transportation/Traffic			
a ould the project cause an increase in traffic which is substantial in relation to the e istin traffic load and capacity of the street system (i e , result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or con estion at intersections)	PDF TT-1: Traffic Control Services. Traffic control services will be used for equipment, supply delivery, pole installation, conductor stringing, and installation of the telecommunications lines following guidelines in the Work Area Traffic Control Handbook (WATCH) 2009 Manual (American Public Works Association) and in accordance with the California Vehicle Code.	See requirements in PDF TT-1.	During construction

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	PDF TT-3: Traffic Management. The applicant will follow guidelines outlined in the WATCH Manual, the California Vehicle Code, and City of Temecula and other local requirements. The applicant will provide traffic control services to ensure an adequate flow of traffic by providing sufficient signage, flagmen, and escort vehicles to alert roadway users of construction zones; notification of emergency responders and the public of planned work activities that could disrupt traffic on roadways or other transportation routes; scheduling roadway work during periods of minimum traffic flow; and specific controls for traffic around schools. Additionally, the applicant shall implement the following measures: • Truck traffic shall use designated truck routes when arriving to and leaving from project areas. • Though some construction worker commutes may be required during peak traffic hours, the majority of construction workers will begin work at 6:00 AM and end at 3:00 PM. • Though occasional construction traffic during peak traffic hours may be necessary, the majority of construction traffic shall be scheduled for off-peak hours. PDF HAZ-4: Traffic Control. See above.	The majority of construction workers will begin work at 6:00 AM and end at 3:00 PM. See additional requirements in PDF TT-3.	During construction
b ould the project e ceed, either individually or cumulatively, a level of service standard established by the county con estion mana ement a ency for desi nated roads or	PDF TT-3: Traffic Management. See above.		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
hi hways			
d ould the project substantially increase ha ards due to a desi n feature (e , sharp curves or dan erous intersections) or incompatible uses (e , farm e uipment)	PDF HAZ-4: Traffic Control. See above. PDF TT-1: Traffic Control Services. See above. PDF TT-2: Incorporate Protective Measures. Any construction or installation work requiring the crossing of a local street, highway, or rail line will incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity. PDF TT-3: Traffic Management. See above. PDF TT-4: Repair Damaged Streets. Any damage to local streets will be repaired, and streets will be restored to their pre-project condition.	See requirements in PDF TT-2. See requirements in PDF TT-4.	During construction During construction
e ould the project result in inade uate emer ency access	PDF HAZ-4: Traffic Control. See above. PDF TT-1: Traffic Control Services. See above. PDF TT-3: Traffic Management. See above. PDF TT-4: Repair Damaged Streets. See above.		
3.16 Utilities and Service Systems			
b ould the project re uire or result in the construction of new water or wastewater treatment facilities or e pansion of e istin facilities, the construction of which could cause si nificant environmental effects	PDF AES-6: Substation Landscaping. See above.		
c ould the project re uire or result in the construction of new storm	PDF HYDRO-1: NPDES Construction Activities Storm Water General Permit. See		

Table 5-1 Mitigation Monitoring, Reporting, and

CEQA Checklist Questions	Project Design Features (PDFs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
water draina e facilities or e pansion of e istin facilities, the construction of which could cause si nificant environmental effects	above. PDF UTIL-1: Notice of Termination. The applicant will submit the Notice of Termination upon reaching stabilization of the project area per the Construction Activities Storm Water General Permit Order 99-08-DWQ.	See requirements in PDF UTIL-1.	After construction
f ould the project be served by a landfill with sufficient permitted capacity to accommodate the project s solid waste disposal needs	PDF HAZ-2: Wood Pole Removal. See above. PDF UTIL-2: Recycle Waste Materials. Materials generated by removal of the existing lines and poles will be processed into roll-off boxes and sent to a commercial metal-recycling facility in where recyclable or salvageable items (e.g., conductor, steel, hardware) are received, sorted, and baled, then sold on the open market. The applicant will categorize waste materials that cannot be recycled to assist with proper final disposal. Soil from drilling, site grading, or excavation for new pole foundations will be screened and separated for use as backfill material at the site of origin to the maximum extent possible.	See requirements in PDF UTIL-2.	During construction and decommissioning
3.17 Mandatory Findings of Significance			
	No PDFs or mitigation measures in addition to those described in the preceding sections.		

Appendix A
Review of Alternative Substation Locations

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A. Review of Alternative Substation Locations

The purpose of an alternatives analysis pursuant to the California Environmental Quality Act (CEQA) is to identify options that would feasibly attain most of the basic project objectives while reducing significant effects of the proposed project. However, CEQA does not require the inclusion of an alternatives analysis in a Mitigated Negative Declaration (MND). This is because the results of the Initial Study supporting an MND, by definition, would show that with incorporation of mitigation measures, the proposed project would not result in significant adverse environmental impacts. Nonetheless, the California Public Utilities Commission (CPUC) did review information about alternatives during preparation of the Initial Study for the Triton Substation project in response to public concern that additional alternative substation locations be considered.

Pursuant to Section IX.B.1.c of CPUC General Order 131-D, Southern California Edison (the applicant) provided an analysis of the proposed substation location (Site A), two alternative substation locations (Site B and Site C), and a system alternative as part of its application and Proponent's Environmental Assessment (PEA). During the initial planning phases of the project, the applicant also considered several other potential substation locations and rejected them for a variety of reasons, including their ability to meet project objectives, environmental impacts, design and engineering concerns, public acceptance, site access, property acquisition, and cost. After the application was filed, the applicant also evaluated the feasibility of two additional potential substation locations at the request of the City of Temecula.

Sites B and C are discussed below and qualitatively compared to the proposed substation location (Site A). Table A-1 summarizes information for 17 substation locations that the applicant considered. These include the three substation locations the applicant analyzed in the PEA (Sites A, B, and C), along with preliminary information on the other substation locations that the applicant considered and rejected. Figure A-1 shows their locations. Some of the information presented in the table is based on the applicant's preliminary assessment and is not sufficient for a detailed analysis of each alternative. However, the summary presents the applicant's rationale for rejecting them.

Site B

Site B is an approximately 9.9-acre unimproved property in the City of Temecula at the southwest corner of Nicolas Road and Choras Ranch Road, about 0.25 miles west of the proposed substation site (Figure A-1). Land use and zoning designations for Site B are the same as for the proposed substation location (low density residential; Rural Preservation Area). In addition, both sites are located about 1.5 miles from the nearest airport and similarly situated from residential neighborhoods.

Site B is directly adjacent to the existing subtransmission line, so construction of the subtransmission line loop-in along Nicolas Road would not be required. The property slopes up from Nicolas Road slightly, which generally would allow better screening of the substation from most public views.

Site B is located in a 100-year floodplain (Figure 3.8-1) and would require additional grading and possibly the need for imported soil to raise the substation above flood-zone levels. Alternatively, a retention basin could be built, but this could lead to the creation of unwanted biological habitat and additional visual impacts.

The site slope in some areas could lead to increased water runoff, drainage issues, or erosion. Slope excavation would be required in some areas. The proposed substation site, by comparison, is relatively flat. Additionally, the existing access road for Site B is unimproved and would be shared with local

residents who access properties adjacent to the site. The applicant does not own the site, and the landowner has expressed reluctance to sell.

Site C

Site C is located on an approximately 4.4-acre property in an unincorporated area of Riverside County, just north of the City of Temecula. The property is located on the northwest corner of Commerce Court and Calistoga Drive, about 1 mile northwest of the proposed substation site (Figure A-1). The property is not located within a 100-year floodplain and would require minimal grading. The property has a land use designation of Mixed Use Planning Area and is within a Specific Plan area.

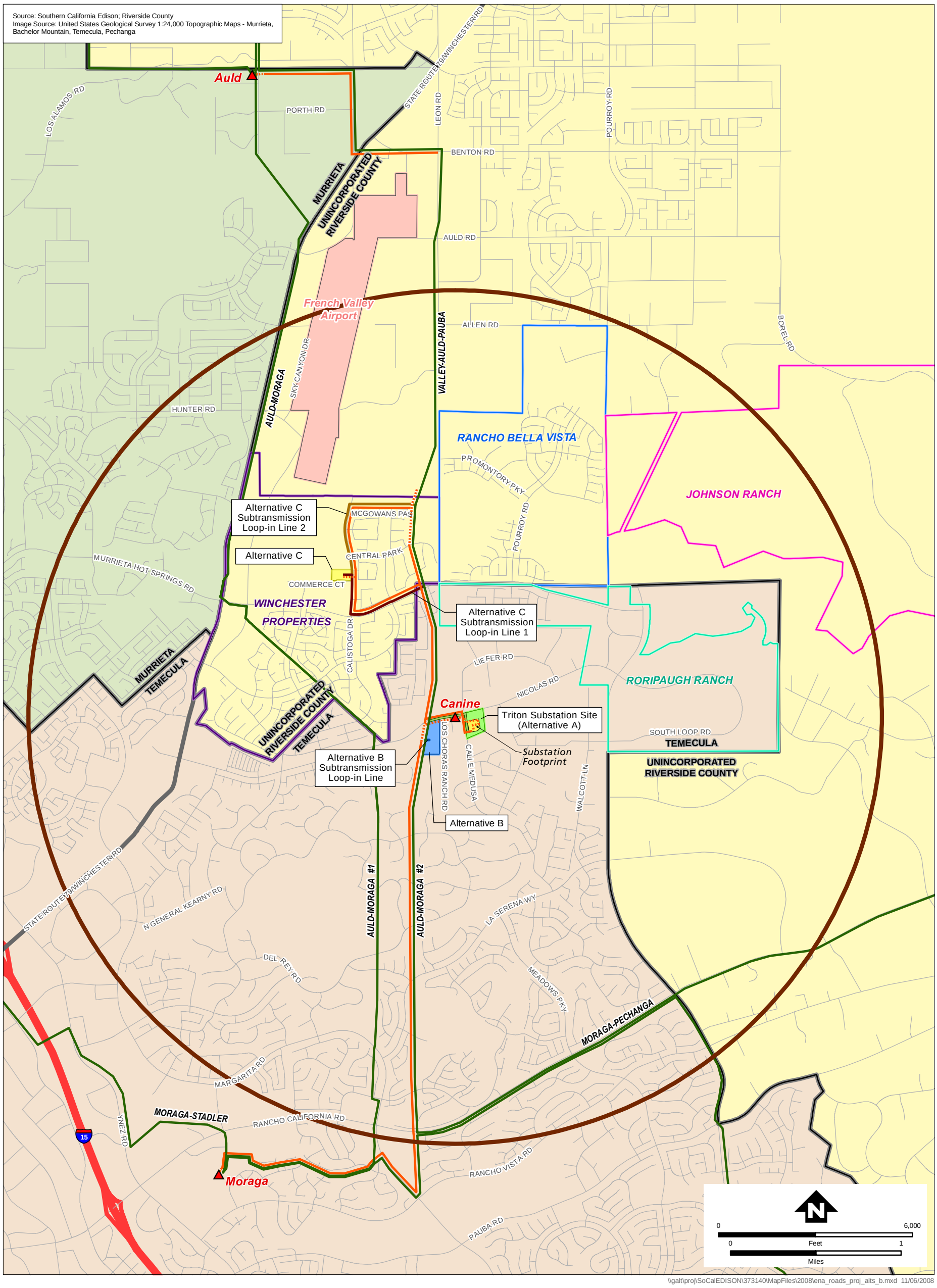
Site C would require the installation of a longer subtransmission line loop-in (more than 3,500 feet), with more than 30 new tubular steel poles on two approximately 0.75-mile lines, as opposed to seven to eight for the proposed substation. Site C is also closer to the French Valley airport (less than 0.5 miles) and residential neighborhoods (directly across Calistoga Drive). According to the applicant's biological study, some of the new poles would be required within or near restored high-quality coastal sage scrub habitat with the potential for special-status plants and wildlife, and a few pole locations would be immediately adjacent to a jurisdictional drainage that supports southern willow scrub habitat (BonTerra Consulting 2008).

In addition, a commercial center has already been proposed for the site; there could be difficulty with acquiring the additional land or right-of-way necessary for the subtransmission line loop-in; and the site is within or near a fault rupture zone (Figure 3.6-1).

Other Substation Locations Considered

The applicant conducted preliminary biological and cultural/archaeological resources evaluations of fifteen of the substation locations that were considered (Figure A-1 and Figure A-2). Though the number of acres reviewed in the biological and archaeological reports varies, for the purposes of the comparison presented in this appendix, the sites from the biological and archaeological reports have been grouped. The site numbering system used in the biological report was used to group the sites. In addition, the following two substation sites were proposed by the City of Temecula after the project application was filed: the Seraphina and Garrett/Boy Scout sites (Figure A-1). The applicant's rationale for rejecting each site is summarized in Table A-1.

Reference: *Figure 2.5-1, Site Alternatives Considered, Triton Substation Preliminary Environmental Assessment*, Southern California Edison, November 21, 2008



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LEGEND

- Existing Substation
- Existing SCE 115 kV Subtransmission Line
- French Valley Airport
- Electrical Needs Area
- City of Temecula
- City of Murrieta
- Unincorporated Riverside County
- Triton Substation site (Alternative A)
- Alternative B
- Alternative C

Telecommunication Routes [1]

- Aboveground
- Belowground

Subtransmission Line Loop-ins [1]

- Alternative A - Line
- Alternative B - Line
- Alternative C - Line 1
- Alternative C - Line 2

[1] – Subtransmission line loop-ins and telecommunication routes are offset for graphical purposes only. Aboveground telecommunication cables would be located on subtransmission structures. Belowground telecommunication cables would be located in underground conduit.

Figure A-1

Alternatives A, B, and C

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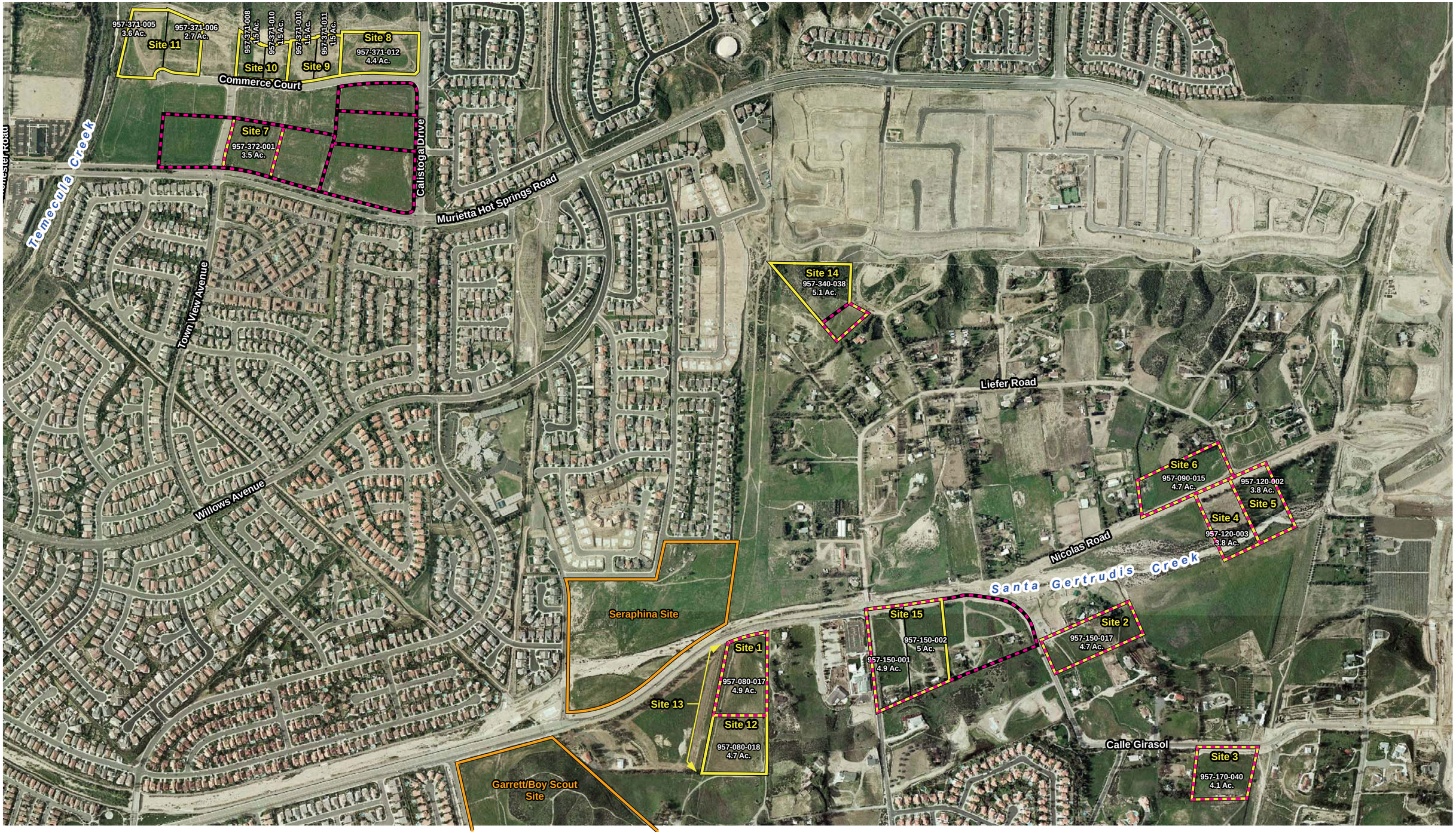

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N

700 350 0 700 Feet

Sites reviewed in Biological Report

Approximate location of sites reviewed in Archaeological Report

Other sites reviewed

Figure A-2

Site Alternatives 1 – 15 and Seraphina and Garrett/Boy Scout Sites

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Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres [1]	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
Sites Reviewed in Biological and Archaeological Reports				
1. Merged with Site 12 to create Site 13	4.9	Temecula; southwest of intersection of Nicolas Road and Choras Ranch Road	- Potential easement issue with nearby home - Adjacent to or within 100-year flood zone [4] - Unimproved access road - Property shape conflict with substation design plan	- Potential for four special-status plant species to occur - Potential special-status wildlife habitat - No archaeological resources identified
2.	4.7	Temecula; southeast of the intersection of Nicolas and Calle Girasol Roads	- Natural drainage crosses site - Distance from subtransmission line - Property shape conflict with substation design plan	- Potential special-status wildlife habitat - No archaeological resources identified
3.	4.1	South of Calle Girasol Road and west of Calle Chapos	- Distance from subtransmission line - Applicant identified potential fault line crossing under or near site	- No archaeological resources identified
4.	3.8	South of Nicolas Road past intersection with Calle Girasol	- Crossed by Santa Gertrudis Creek - Distance from subtransmission line - Property shape conflict with substation design plan	- Potential for nine special-status plant species to occur - Special-status wildlife species may occur - Potential special-status wildlife habitat - No archaeological resources identified
5.	3.8	South of Nicolas Road and east of Site 4	- Crossed by Santa Gertrudis Creek - Distance from subtransmission line - Property shape conflict with substation design plan	- Potential for nine special-status plant species to occur - Special-status wildlife species may occur - Potential special-status wildlife habitat - No archaeological resources identified
6.	4.7	North across Nicolas Road from Sites 4 and 5	- Distance from subtransmission line - Property shape conflict with substation design plan	- No archaeological resources identified
7.	3.5 [2]	Northeast of intersection of Murrieta Hot Springs Road and Town View Avenue	- Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Small basin of water onsite - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone [5]	- Potential special-status wildlife habitat - No archaeological resources identified

Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres [1]	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
8. Same as Alternative C	4.4 [2]	Northwest of intersection of Commerce Court and Calistoga Drive	- Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone [5]	- Potential for one special-status plant species to occur - No archaeological resources identified
9.	3.0 [2]	North of Commerce Court and west of Site 8	- Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone [5]	- Potential for one special-status plant species to occur - No archaeological resources identified
10.	3.0 [2]	North of Commerce Court and west of Site 9	- Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone [5]	- No archaeological resources identified
11.	6.3 [2]	North of Commerce Court and west of Site 10	- Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Small basin of water onsite - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone [5] - Temecula creek near site border - Dam inundation area on or adjacent to site	- Potential special-status wildlife habitat - No archaeological resources identified

Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres [1]	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
12. Merged with Site 1 to create Site 13	4.7	South of Nicolas Road and Site 1	- Potential land acquisition problem - Sloped areas - Potential drainage and erosion issues - Increased amount of grading - Potential easement issue with nearby home - Adjacent to or within 100-year flood zone [4] - Unimproved access road	- Potential for four special-status plant species to occur - Potential special-status wildlife habitat - No archaeological resources identified
13. Same as Alternative B	9.9	Combines Site 1, Site 12, and additional land south of Nicolas Road	- Potential land acquisition problem - Sloped areas - Potential drainage and erosion issues - Increased amount of grading - Potential easement issue with nearby home - Adjacent to or within 100-year flood zone [4] - Unimproved access road	- Potential for four special-status plant species to occur - Potential special-status wildlife habitat - No archaeological resources identified
14.	5.1	Northwest of intersection of Liefer Road and Greenwood Lane	- Natural drainage crosses site - Unimproved access road - Potential for increased visual impacts - Access to distribution circuits	- Potential for four special-status plant species to occur - Special-status wildlife species observed and expected - Potential special-status wildlife habitat - No archaeological resources identified
15. Site A	9.9 [3]	Southeast of intersection Nicolas Road and Calle Medusa	- Two churches adjacent to site - Residences on southern portion of site	- Potential special-status wildlife habitat - No archaeological resources identified
Additional Sites Proposed by the City of Temecula				
Seraphina property	30.1	Northwest of intersection of Nicolas Road and Choras Ranch Road	- Substation would potentially be visible to greater number of residences - Majority of site within 100-year flood plain [4]	- Known population of San Diego ambrosia (*mbrosia umila*) and area proposed as critical habitat - Applicant identified potential to support numerous special-status plant and wildlife species, but field studies were not conducted

Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres [1]	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
Garrett/Boy Scout property)	72.3	South of intersection of Nicolas Road and Joseph Road	- Drainage channel on portion of site - Hilly areas on portion of site - Northern area along Nicolas Road is within 100-year flood plain [4]	- Applicant identified potential to support numerous special-status plant and wildlife species, but field studies were not conducted

Source: BonTerra Consulting 2008; City of Temecula 2009; Earth Tech 2007; Earth Tech 2008; 74 Federal Register 165

Notes:

[1] The number of acres reviewed in the biological and archaeological reports varies for some sites. Some sites were initially larger or smaller in total acres, and the site boundaries were later refined.

[2] The number of acres reviewed in the biological and archaeological reports differ considerably for these sites. The locations of these sites are roughly the same but differ to some degree. For the purposes of this comparison, however, the sites from the biological and archaeological reports have been grouped.

[3] The biological report included only the western half of the 20-acre property. The eastern half of the property would not be used for the Triton Substation.

[4] See Figure 3.8-1.

[5] See Figure 3.6-1.

References

BonTerra Consulting. 2008. *Biological Technical Report: Triton Substation Project*. Prepared for Southern California Edison. November 4.

City of Temecula. 2009. *Seraphina and Garrett/Boy Scout Property*. City of Temecula Geographic Information System Map. February 11.

Earth Tech. 2007. *Archaeological Survey Report for Southern California Edison's Triton Substation: Temecula and Murrieta Hot Springs Areas, Riverside County, California*. Prepared for Southern California Edison. May 16. Draft.

Earth Tech. 2008. *Archaeological Survey Report for Southern California Edison's Triton Substation: Temecula and Murrieta Hot Springs Areas, Riverside County, California*. Prepared for Southern California Edison. August 5. Final.

Federal Register. 2009. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Ambrosia pumila (San Diego ambrosia). Vol. 74, No. 165 (August 27), 44238–44267.

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Appendix B
Air Quality and Greenhouse Gas Emissions Calculations

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Appendix F1-A:
Table A1: Construction Schedule

			Week																																							
	TASK	Days	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Substation	TS-1: Civil Construction	100																																								
Sub Electrical		120																																							
	TS-2: MEER																																								
	TS-3: Transformer Testing and Preparation																																								
	TS-4: Electrical Construction																																								
	TS-5: Transformer Installation																																								
	TS-7: Test Crew																																								
Sub Paving	TS-6: Paving	10																																							
115 kV	ST-1: Installing Steel Pole Footings	14																																							
	ST-2: Setting New Steel Poles	7																																							
	ST-3: Installing Overhead Conductor	5																																							
12 kV	12 Kv Distribution Line Getaway	2																																							
Telecommunications	TL-1: Substation Communications Installation	40																																							
	TL-2: Overhead Communications Installation	25																																							
	TL-3: Underground Trenching	6																																							
	TL-4: Underground Cable Installation	6																																							

Appendix F1-A
Table A2: Maximum Daily Emissions

Maximum Daily Construction Emissions

	CO (lb/day)	NOx (lb/day)	ROG (lb/day)	SOx (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Maximum Construction Equipment Exhaust	47	82	10	0.1	3.7	3.4
Maximum Workers Commute	28	2.9	2.8	0.03	0.24	0.15
Maximum Fugitive Dust	NA	NA	NA	NA	40.2	6.9
Maximum Combined Daily Emissions	**70**	**85**	**12**	**0.12**	**44**	**10**
SCAQMD Thresholds	550	100	75	150	150	55
Exceeding Thresholds?	NO	NO	NO	NO	NO	NO

Maximum Daily Operation Emissions

	CO (lb/day)	NOx (lb/day)	ROG (lb/day)	SOx (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Maximum Vehicle Exhaust	0.775	0.080	0.079	0.00085	0.0069	0.0043
Maximum Fugitive Dust	NA	NA	NA	NA	0.95	0.16
Maximum Combined Daily Emissions	**0.77**	**0.080**	**0.079**	**0.00085**	**0.96**	**0.17**
SCAQMD Thresholds	550	55	55	150	150	55
Exceeding Thresholds?	NO	NO	NO	NO	NO	NO

Appendix F1-A:
Table A3: Summary of Daily Emissions by Construction Phase - Proposed Project
1. Total Emissions without Watering

		Total Emissions without Watering (lb/day)									
Construction Phases		**CO**	**NOx**	**ROG**	**SOx**	**PM_{10} Exhaust**	**PM_{10} Fugitive**	**PM_{10} Total**	**$PM_{2.5}$ Exhaust**	**$PM_{2.5}$ Fugitive**	**$PM_{2.5}$ Total**
a	**TS-1: Civil Construction - Below Grade/Perimeter Wall Construction and Localized Fine Grading**	14.94	23.76	3.10	0.03	1.13	4.30	5.42	1.02	0.73	1.74
b1	**TS-2: MEER**	7.24	2.58	0.81	0.01	0.12	6.68	6.80	0.09	1.13	1.22
b2	**TS-3: Transformer Testing and Preparation**	11.19	11.82	2.03	0.02	0.67	8.12	8.78	0.59	1.37	1.96
b3	**TS-4: Electrical Construction**	9.35	11.31	1.58	0.02	0.50	5.25	5.75	0.44	0.89	1.33
b4	**TS-5: Transformer Installation**	10.15	17.41	2.33	0.02	0.86	2.86	3.72	0.78	0.48	1.27
c	**TS-6: Paving**	22.97	42.36	7.86	0.05	2.00	3.82	5.82	1.83	0.65	2.47
b5	**TS-7: Test Crew**	2.59	2.09	0.33	0.00	0.08	0.95	1.03	0.07	0.16	0.23
d	**ST-1: Installing Steel Pole Footings**	14.58	20.36	2.38	0.03	0.84	5.25	6.09	0.75	0.89	1.64
e	**ST-2: Setting New Steel Poles**	26.80	39.37	4.83	0.05	1.67	9.55	11.22	1.50	1.61	3.11
f	**ST-3: Installing Overhead Conductor**	19.34	31.86	3.77	0.04	1.41	7.16	8.57	1.27	1.21	2.48
g	**12 Kv Distribution Line Getaway**	8.22	7.68	1.36	0.01	0.47	5.25	5.72	0.42	0.89	1.31
h	**TL-1: Substation Communications Installation**	2.32	0.24	0.24	0.00	0.02	2.86	2.88	0.01	0.48	0.50
i	**TL-2: Overhead Communications Installation**	4.63	10.20	0.95	0.01	0.49	1.91	2.40	0.43	0.32	0.75
j	**TL-3: Underground Trenching**	6.37	8.14	1.28	0.01	0.54	1.91	2.45	0.49	0.32	0.81
k	**TL-4: Underground Cable Installation**	8.89	10.65	1.39	0.02	0.53	7.16	7.69	0.45	1.21	1.66
l	**Grading and Stock Piles (entire project)**	0.00	0.00	0.00	0.00	0.00	5.00	5.00	0.00	1.04	1.04
	Overlapping Phases										
	a	15	24	3.1	0.03	1.1	9	10	1.0	1.8	2.8
	ab	55	69	10.2	0.09	3.4	33	37	3.0	5.8	8.8
	bd	55	66	9.5	0.09	3.1	34	37	2.7	6.0	8.7
	beh	70	85	12.2	0.12	3.9	41	45	3.5	7.2	10.7
	bfh	62	77	11.1	0.11	3.7	39	43	3.2	6.8	10.0
	bghi	56	63	9.6	0.09	3.2	39	42	2.8	6.8	9.6
	bhi	47	56	8.3	0.08	2.7	34	36	2.4	5.9	8.3
	bhijk	63	74	10.9	0.10	3.8	43	47	3.4	7.4	10.8
	Maximum Daily Emissions	**70**	**85**	**12**	**0.12**	**3.9**	**43**	**47**	**3.5**	**7.4**	**11**

Note:
1. Based on the construction schedule, emissions from overlapping construction phases were added together to evaluate the worst case scenarios. The maximum daily emissions represent the scenario of overlapping phases with the highest emissions.
2. Fugitive dust emissions from site grading/disturbance were not calculated for each construction phase. The emissions were calculated separately based on a maximum area of disturbance.
3. The fugitive dusts from site disturbance were assumed to be controlled by 50% by watering the site twice per day, according to the control efficiencies in SCAQMD CEQA Air Quality Handbook Table 11-4.

Appendix F1-A:
Table A3: Summary of Daily Emissions by Construction
1. Total Emissions without Watering **2. Total Emissions with Watering**

		Total Emissions with Watering (lb/day)									
	Construction Phases	**CO**	**NOx**	**ROG**	**SOx**	**PM_{10} Exhaust**	**PM_{10} Fugitive**	**PM_{10} Total**	**$PM_{2.5}$ Exhaust**	**$PM_{2.5}$ Fugitive**	**$PM_{2.5}$ Total**
a	**TS-1: Civil Construction - Below Grade/Perimeter Wall Construction and Localized Fine Grading**	16.10	27.52	3.39	0.03	1.31	4.30	5.60	1.18	0.73	1.90
b1	**TS-2: MEER**	7.24	2.58	0.81	0.01	0.12	6.68	6.80	0.09	1.13	1.22
b2	**TS-3: Transformer Testing and Preparation**	11.19	11.82	2.03	0.02	0.67	8.12	8.78	0.59	1.37	1.96
b3	**TS-4: Electrical Construction**	9.35	11.31	1.58	0.02	0.50	5.25	5.75	0.44	0.89	1.33
b4	**TS-5: Transformer Installation**	10.15	17.41	2.33	0.02	0.86	2.86	3.72	0.78	0.48	1.27
c	**TS-6: Paving**	22.97	42.36	7.86	0.05	2.00	3.82	5.82	1.83	0.65	2.47
b5	**TS-7: Test Crew**	2.59	2.09	0.33	0.00	0.08	0.95	1.03	0.07	0.16	0.23
d	**ST-1: Installing Steel Pole Footings**	14.58	20.36	2.38	0.03	0.84	5.25	6.09	0.75	0.89	1.64
e	**ST-2: Setting New Steel Poles**	26.80	39.37	4.83	0.05	1.67	9.55	11.22	1.50	1.61	3.11
f	**ST-3: Installing Overhead Conductor**	19.34	31.86	3.77	0.04	1.41	7.16	8.57	1.27	1.21	2.48
g	**12 Kv Distribution Line Getaway**	8.22	7.68	1.36	0.01	0.47	5.25	5.72	0.42	0.89	1.31
h	**TL-1: Substation Communications Installation**	2.32	0.24	0.24	0.00	0.02	2.86	2.88	0.01	0.48	0.50
i	**TL-2: Overhead Communications Installation**	4.63	10.20	0.95	0.01	0.49	1.91	2.40	0.43	0.32	0.75
j	**TL-3: Underground Trenching**	6.37	8.14	1.28	0.01	0.54	1.91	2.45	0.49	0.32	0.81
k	**TL-4: Underground Cable Installation**	8.89	10.65	1.39	0.02	0.53	7.16	7.69	0.45	1.21	1.66
l	**Grading and Stock Piles (entire project)**	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.00	0.52	0.52
	Overlapping Phases										
	a	16	28	3.4	0.03	1.3	6.8	8	1.2	1.2	2.4
	ab	57	73	10.5	0.10	3.5	31	34	3.1	5.3	8.4
	bd	55	66	9.5	0.09	3.1	32	35	2.7	5.4	8.2
	beh	70	85	12.2	0.12	3.9	39	43	3.5	6.7	10.1
	bfh	62	77	11.1	0.11	3.7	36	40	3.2	6.2	9.5
	bghi	56	63	9.6	0.09	3.2	36	40	2.8	6.2	9.1
	bhi	47	56	8.3	0.08	2.7	31	34	2.4	5.4	7.8
	bhijk	63	74	10.9	0.10	3.8	40	44	3.4	6.9	10.2
	Maximum Daily Emissions	**70**	**85**	**12**	**0.12**	**3.9**	**40**	**44**	**3.5**	**6.9**	**10**

Appendix F1-A:

Table A3: Summary of Daily Emissions by Construction

1. Total Emissions without Watering **3. Construction Equipment and Vehicle Exhaust** **4. Workers Commute**

		Construction Equipment and Vehicle Exhaust (lb/day)						Workers Commute (lb/day)					
	Construction Phases	**CO**	**NOx**	**ROG**	**SOx**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**	**CO**	**NOx**	**ROG**	**SOx**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
a	**TS-1: Civil Construction - Below Grade/Perimeter Wall Construction and Localized Fine Grading**	13.39	23.60	2.94	0.03	1.11	1.01	1.550	0.161	0.159	0.002	0.014	0.009
b1	**TS-2: MEER**	1.81	2.01	0.25	0.00	0.07	0.06	5.424	0.563	0.556	0.006	0.048	0.030
b2	**TS-3: Transformer Testing and Preparation**	5.38	11.21	1.43	0.01	0.62	0.56	5.811	0.603	0.595	0.006	0.052	0.032
b3	**TS-4: Electrical Construction**	5.48	10.91	1.18	0.01	0.47	0.42	3.874	0.402	0.397	0.004	0.034	0.022
b4	**TS-5: Transformer Installation**	7.83	17.17	2.09	0.02	0.84	0.77	2.325	0.241	0.238	0.003	0.021	0.013
c	**TS-6: Paving**	20.65	42.12	7.62	0.04	1.98	1.81	2.325	0.241	0.238	0.003	0.021	0.013
b5	**TS-7: Test Crew**	1.81	2.01	0.25	0.00	0.07	0.06	0.775	0.080	0.079	0.001	0.007	0.004
d	**ST-1: Installing Steel Pole Footings**	12.26	20.12	2.14	0.03	0.82	0.74	2.325	0.241	0.238	0.003	0.021	0.013
e	**ST-2: Setting New Steel Poles**	22.92	38.96	4.44	0.05	1.64	1.48	3.874	0.402	0.397	0.004	0.034	0.022
f	**ST-3: Installing Overhead Conductor**	15.47	31.46	3.37	0.04	1.38	1.24	3.874	0.402	0.397	0.004	0.034	0.022
g	**12 Kv Distribution Line Getaway**	5.12	7.36	1.04	0.01	0.44	0.40	3.099	0.322	0.318	0.003	0.028	0.017
h	**TL-1: Substation Communications Installation**	1.55	0.16	0.16	0.00	0.01	0.01	0.775	0.080	0.079	0.001	0.007	0.004
i	**TL-2: Overhead Communications Installation**	3.08	10.04	0.79	0.01	0.48	0.42	1.550	0.161	0.159	0.002	0.014	0.009
j	**TL-3: Underground Trenching**	5.21	8.02	1.17	0.01	0.53	0.48	1.162	0.121	0.119	0.001	0.010	0.006
k	**TL-4: Underground Cable Installation**	3.08	10.04	0.79	0.01	0.48	0.42	5.811	0.603	0.595	0.006	0.052	0.032
l	**Grading and Stock Piles (entire project)**	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000
	Overlapping Phases												
	a	13	24	2.9	0.03	1.1	1.0	2	0.16	0.16	0.002	0.01	0.01
	ab	36	67	8.2	0.07	3.2	2.9	20	2.05	2.02	0.022	0.18	0.11
	bd	35	63	7.4	0.07	2.9	2.6	21	2.13	2.10	0.023	0.18	0.11
	beh	47	82	9.8	0.09	3.7	3.4	23	2.37	2.34	0.025	0.20	0.13
	bfh	39	75	8.7	0.08	3.5	3.1	23	2.37	2.34	0.025	0.20	0.13
	bghi	32	61	7.2	0.06	3.0	2.7	24	2.45	2.42	0.026	0.21	0.13
	bhi	27	54	6.2	0.05	2.6	2.3	21	2.13	2.10	0.023	0.18	0.11
	bhijk	35	72	8.1	0.07	3.6	3.2	28	2.85	2.82	0.030	0.24	0.15
	Maximum Daily Emissions	**47**	**82**	**10**	**0.09**	**3.7**	**3.4**	**28**	**2.9**	**2.8**	**0.030**	**0.24**	**0.15**

Appendix F1-A:

Table A4: Construction Equipment Usage and Emission Factors

Triton Substation (TS)

TS-1: Civil Construction - Below Grade/Perimeter Wall Construction and Localized Fine Grading

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Crew Truck	2	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Dump Truck	1	6	40	3	120	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.012	0.00069	0.002
Concrete Truck	1	3	40	2	80	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.00003	0.00081	0.012	0.00069	0.002
Bobcat	1	3	NA	NA	NA	Other Construction Equipment	lb/hr	0.429	1.081	0.113	0.001	0.04709	0.000	0.04332	0.000
Skip Loader	1	4	NA	NA	NA	Skid Steer Loaders	lb/hr	0.257	0.306	0.078	0.000	0.02758	0.000	0.02537	0.000
Forklift	1	4	NA	NA	NA	Forklifts	lb/hr	0.237	0.556	0.074	0.001	0.03024	0.000	0.02782	0.000
Stake Truck	1	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Carry-all	1	4	NA	NA	NA	Other Construction Equipment	lb/hr	0.429	1.081	0.113	0.001	0.04709	0.000	0.04332	0.000
Grader	1	4	NA	NA	NA	Graders	lb/hr	0.643	1.524	0.183	0.001	0.07958	0.000	0.07321	0.000
Water Truck	1	6	90	1	90	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.000	0.00200	0.000	0.00175	0.000
Worker Commute	4	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.0000860	0.012	0.00005	0.002

TS-2: MEER

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Stake Truck	1	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Crew Truck	2	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Worker Commute	14	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

TS-3: Transformer Testing and Preparation

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Diesel Generator	1	6	NA	NA	NA	Generator Sets	lb/hr	0.338	0.672	0.102	0.001	0.04139	0.000	0.03808	0.000
Lift Truck	1	3	45	1	45	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.000	0.00200	0.000	0.00175	0.000
Pick Up	2	2	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.0000538	0.002
Boom truck	1	3	45	1	45	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.000	0.00200	0.000	0.00175	0.000
Forklift	1	6	NA	NA	NA	Forklifts	lb/hr	0.237	0.556	0.074	0.001	0.03024	0.000	0.02782	0.000
Worker Commute	15	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

TS-4: Electrical Construction

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Boom Truck	1	3	45	1	45	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.00004	0.00200	0.000	0.00175	0.000
Crew Truck	3	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Flatbed	1	2	40	1	40	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.012	0.00069	0.002
Crane	1	4	NA	NA	NA	Cranes	lb/hr	0.571	1.529	0.168	0.001	0.06780	0.000	0.06237	0.000
Worker Commute	10	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

TS-5: Transformer Installation

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Forklift	1	6	NA	NA	NA	Forklifts	lb/hr	0.237	0.556	0.074	0.001	0.03024	0.000	0.02782	0.000
Crew Truck	2	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Tractor Truck	1	6	NA	NA	NA	Off-Highway Tractors	lb/hr	0.866	2.082	0.247	0.00167	0.10171	0.000	0.09358	0.000
Worker Commute	6	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

TS-6: Paving

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Stake Truck	1	4	60	1	60	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Crew Truck	2	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Tractor	1	3	NA	NA	NA	Tractors/Loaders/Backhoes	lb/hr	0.399	0.723	0.111	0.001	0.05590	0.000	0.05143	0.000
Dump Truck	1	3	40	2	80	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.012	0.00069	0.002
Barbergreen	1	8	NA	NA	NA	Other Construction Equipment	lb/hr	0.429	1.081	0.113	0.001	0.04709	0.000	0.04332	0.000
Paddle Scraper	1	6	NA	NA	NA	Scrapers	lb/hr	1.328	3.063	0.335	0.003	0.13214	0.000	0.12157	0.000
Asphalt Paver	1	4	NA	NA	NA	Pavers	lb/hr	0.576	1.032	0.187	0.001	0.07388	0.000	0.06797	0.000
Bobcat	1	4	NA	NA	NA	Other Construction Equipment	lb/hr	0.429	1.081	0.113	0.001	0.04709	0.000	0.04332	0.000
Worker Commute	6	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002
	Daily Amount	Unit				Paving	lb ROG/acre	0.000	0.000	2.620	0.000	0.000	0.000	0.000	0.000
Paving	1	acre													

TS-7: Test Crew

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Test Truck	2	3	45	1	45	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Worker Commute	2	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

15 kV Subtransmission Line Installation

ST-1: Installing Steel Pole Footings

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Utility Truck	1	10	150	1	150	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Drill Rig	1	10	NA	NA	NA	Bore/Drill Rigs	lb/hr	0.520	1.229	0.116	0.002	0.05406	0.000	0.04974	0.000
Concrete Truck	1	10	40	5	200	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.012	0.00069	0.002
Worker Commute	6	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

ST-2: Setting New Steel Poles

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Concrete Truck	1	10	40	5	200	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.012	0.00069	0.002
Drill Rig	1	10	NA	NA	NA	Bore/Drill Rigs	lb/hr	0.520	1.229	0.116	0.002	0.05406	0.000	0.04974	0.000
Crane	1	10	NA	NA	NA	Cranes	lb/hr	0.571	1.529	0.168	0.001	0.06780	0.000	0.06237	0.000
Crew Truck	1	10	150	1	150	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Utility Truck	1	10	150	1	150	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
SUV	1	10	40	5	200	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002
Worker Commute	10	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

ST-3: Installing Overhead Conductor

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Conductor Pulling Machine	1	10	NA	NA	NA	Other Construction Equipment	lb/hr	0.429	1.081	0.113	0.00127	0.04709	0.000	0.04332	0.000
Cable Dolly	1	10	NA	NA	NA	Other Construction Equipment	lb/hr	0.429	1.081	0.113	0.001	0.04709	0.000	0.04332	0.000
Utility Truck	1	10	150	1	150	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.000	0.00081	0.000	0.00069	0.000
Line Truck	1	10	150	1	150	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.000	0.00200	0.000	0.00175	0.000
SUV	1	10	40	5	200	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002
Worker Commute	10	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.000	0.00009	0.012	0.00005	0.002

12 Kv Distribution Line Getaway

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Crew Truck	1	1	15	1	15	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.00003	0.00081	0.000	0.00069	0.000
Dump Truck	1	6	40	3	120	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.00003	0.00081	0.012	0.00069	0.002
Backhoe	1	6	NA	NA	NA	Tractors/Loaders/Backhoes	lb/hr	0.399	0.723	0.111	0.00078	0.05590	0.000	0.05143	0.000
Worker Commute	8	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.00001	0.00009	0.012	0.00005	0.002

Telecommunications

TL-1: Substation Communications Installation

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Vans	2	4	40	2	80	On-road passenger	lb/VMT	0.010	0.001	0.001	0.00001	0.00009	0.012	0.00005	0.002
Worker Commute	2	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.00001	0.00009	0.012	0.00005	0.002

TL-2: Overhead Communications Installation

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Bucket Truck	1	8	120	1	120	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.00004	0.00200	0.000	0.00175	0.000
Reel Truck	1	8	120	1	120	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.00004	0.00200	0.000	0.00175	0.000
Worker Commute	4	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.00001	0.00009	0.012	0.00005	0.002

TL-3: Underground Trenching

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Flatbed	1	1	40	1	40	On-road Delivery	lb/VMT	0.020	0.022	0.003	0.00003	0.00081	0.012	0.00069	0.002
Backhoe	1	8	NA	NA	NA	Tractors/Loaders/Backhoes	lb/hr	0.399	0.723	0.111	0.00078	0.05590	0.000	0.05143	0.000
Stake Truck	1	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.00003	0.00081	0.000	0.00069	0.000
Crew Truck	1	2	30	1	30	On-road Delivery (construction site)	lb/VMT	0.020	0.022	0.003	0.00003	0.00081	0.000	0.00069	0.000
Worker Commute	3	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.00001	0.00009	0.012	0.00005	0.002

TL-4: Underground Cable Installation

	All Equipment		Per Truck				Emission Factors								
Equipment Description	Units	Maximum daily hours	Miles per round trip	Daily roundtrips	Miles on paved road	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	(Ea.)	(hrs/day)	Miles/RT	RT/day	miles/day										
Bucket Truck	1	8	120	1	120	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.00004	0.00200	0.000	0.00175	0.000
Reel Truck	1	8	120	1	120	On-road HHDT (construction site)	lb/VMT	0.013	0.042	0.003	0.00004	0.00200	0.000	0.00175	0.000
Worker Commute	15	NA	40	1	40	On-road passenger	lb/VMT	0.010	0.001	0.001	0.00001	0.00009	0.012	0.00005	0.002

Other Fugitive Dusts

				Emission Factors								
Equipment Description	Maximum Area	Unit	Equipment type	Emission factor unit	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Site Disturbance	0.5	acres/day	Site Disturbance	lb/acre/day	0.000	0.000	0.000	0.000	0.000	10.00000	0.000	2.080

Note: Detailed references for the emission factors can be found in Appendix B.

Appendix F1-A:

Table A5: Daily Emissions - Proposed Project

Triton Substation (TS)

TS-1: Civil Construction - Below Grade/Perimeter Wall Construction and Localized Fine Grading

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Crew Truck	1.210	1.342	0.167	0.002	0.048	0.000	0.042	0.000	1.2096	1.3420	0.1673	0.0016	0.0483	0.0000	0.0415	0.0000
Dump Truck	2.419	2.684	0.335	0.003	0.097	1.432	0.083	0.242	2.4193	2.6840	0.3347	0.0032	0.0967	1.4322	0.0831	0.2420
Concrete Truck	1.613	1.789	0.223	0.002	0.064	0.955	0.055	0.161	1.6129	1.7893	0.2231	0.0021	0.0644	0.9548	0.0554	0.1614
Bobcat	1.287	3.244	0.339	0.004	0.141	0.000	0.130	0.000	1.2874	3.2436	0.3391	0.0038	0.1413	0.0000	0.1300	0.0000
Skip Loader	1.026	1.223	0.313	0.001	0.110	0.000	0.101	0.000	1.0261	1.2226	0.3132	0.0015	0.1103	0.0000	0.1015	0.0000
Forklift	0.946	2.224	0.296	0.002	0.121	0.000	0.111	0.000	0.9464	2.2241	0.2964	0.0024	0.1210	0.0000	0.1113	0.0000
Stake Truck	0.605	0.671	0.084	0.001	0.024	0.000	0.021	0.000	0.6048	0.6710	0.0837	0.0008	0.0242	0.0000	0.0208	0.0000
Carry-all	1.717	4.325	0.452	0.005	0.188	0.000	0.173	0.000	1.7165	4.3248	0.4521	0.0051	0.1884	0.0000	0.1733	0.0000
Grader	2.571	6.095	0.730	0.006	0.318	0.000	0.293	0.000	2.5714	6.0949	0.7300	0.0060	0.3183	0.0000	0.2928	0.0000
Water Truck	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.154	3.766	0.296	0.004	0.180	0.000	0.158	0.000
Worker Commute	1.550	0.161	0.159	0.002	0.014	1.910	0.009	0.323	1.5497	0.1608	0.1588	0.0017	0.0138	1.9095	0.0086	0.3227
Total	14.944	23.757	3.098	0.028	1.127	4.296	1.018	0.726	16.098	27.523	3.395	0.032	1.306	4.296	1.176	0.726

TS-2: MEER

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Stake Truck	0.605	0.671	0.084	0.001	0.024	0.000	0.021	0.000	0.605	0.671	0.084	0.001	0.024	0.0000	0.0208	0.0000
Crew Truck	1.210	1.342	0.167	0.002	0.048	0.000	0.0415	0.000	1.210	1.342	0.167	0.002	0.048	0.0000	0.0415	0.0000
Worker Commute	5.424	0.563	0.556	0.006	0.048	6.683	0.030	1.129	5.424	0.563	0.556	0.006	0.048	6.6834	0.0302	1.1295
Total	7.238	2.576	0.807	0.008	0.121	6.683	0.092	1.129	7.238	2.576	0.807	0.008	0.121	6.683	0.092	1.129

TS-3: Transformer Testing and Preparation

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Diesel Generator	2.027	4.031	0.612	0.004	0.248	0.000	0.228	0.000	2.027	4.031	0.612	0.004	0.248	0.0000	0.2285	0.0000
Lift Truck	0.577	1.883	0.148	0.002	0.090	0.000	0.079	0.000	0.577	1.883	0.148	0.002	0.090	0.0000	0.0789	0.0000
Pick Up	0.775	0.080	0.079	0.001	0.007	0.955	0.004	0.161	0.775	0.080	0.079	0.001	0.007	0.9548	0.0043	0.1614
Boom truck	0.577	1.883	0.148	0.002	0.090	0.000	0.079	0.000	0.577	1.883	0.148	0.002	0.090	0.0000	0.0789	0.0000
Forklift	1.420	3.336	0.445	0.004	0.181	0.000	0.167	0.000	1.420	3.336	0.445	0.004	0.181	0.0000	0.1669	0.0000
Worker Commute	5.811	0.603	0.595	0.006	0.052	7.161	0.032	1.210	5.811	0.603	0.595	0.006	0.052	7.1608	0.0323	1.2102
Total	11.187	11.817	2.028	0.019	0.668	8.116	0.590	1.372	11.187	11.817	2.028	0.019	0.668	8.116	0.590	1.372

TS-4: Electrical Construction

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Boom Truck	0.577	1.883	0.148	0.002	0.090	0.000	0.079	0.000	0.577	1.883	0.148	0.002	0.090	0.0000	0.0789	0.0000
Crew Truck	1.814	2.013	0.251	0.002	0.072	0.000	0.062	0.000	1.814	2.013	0.251	0.002	0.072	0.0000	0.0623	0.0000
Flatbed	0.806	0.895	0.112	0.001	0.032	0.477	0.028	0.081	0.806	0.895	0.112	0.001	0.032	0.4774	0.0277	0.0807
Crane	2.282	6.117	0.673	0.006	0.271	0.000	0.249	0.000	2.282	6.117	0.673	0.006	0.271	0.0000	0.2495	0.0000
Worker Commute	3.874	0.402	0.397	0.004	0.034	4.774	0.022	0.807	3.874	0.402	0.397	0.004	0.034	4.7739	0.0215	0.8068
Total	9.354	11.310	1.581	0.015	0.500	5.251	0.440	0.887	9.354	11.310	1.581	0.015	0.500	5.251	0.440	0.887

TS-5: Transformer Installation

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Forklift	1.420	3.336	0.445	0.004	0.181	0.000	0.167	0.000	1.420	3.336	0.445	0.004	0.181	0.0000	0.1669	0.0000
Crew Truck	1.210	1.342	0.167	0.002	0.048	0.000	0.042	0.000	1.210	1.342	0.167	0.002	0.048	0.0000	0.0415	0.0000
Tractor Truck	5.198	12.491	1.482	0.010	0.610	0.000	0.561	0.000	5.198	12.491	1.482	0.010	0.610	0.0000	0.5615	0.0000
Worker Commute	2.325	0.241	0.238	0.003	0.021	2.864	0.013	0.484	2.325	0.241	0.238	0.003	0.021	2.8643	0.0129	0.4841
Total	10.152	17.410	2.332	0.018	0.861	2.864	0.783	0.484	10.152	17.410	2.332	0.018	0.861	2.864	0.783	0.484

TS-6: Paving

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Stake Truck	1.210	1.342	0.167	0.002	0.048	0.000	0.042	0.000	1.210	1.342	0.167	0.002	0.048	0.0000	0.0415	0.0000
Crew Truck	1.210	1.342	0.167	0.002	0.048	0.000	0.042	0.000	1.210	1.342	0.167	0.002	0.048	0.0000	0.0415	0.0000
Tractor	1.198	2.168	0.333	0.002	0.168	0.000	0.154	0.000	1.198	2.168	0.333	0.002	0.168	0.0000	0.1543	0.0000
Dump Truck	1.613	1.789	0.223	0.002	0.064	0.955	0.055	0.161	1.613	1.789	0.223	0.002	0.064	0.9548	0.0554	0.1614
Barbergreen	3.433	8.650	0.904	0.010	0.377	0.000	0.347	0.000	3.433	8.650	0.904	0.010	0.377	0.0000	0.3466	0.0000
Paddle Scraper	7.966	18.378	2.008	0.016	0.793	0.000	0.729	0.000	7.966	18.378	2.008	0.016	0.793	0.0000	0.7294	0.0000
Asphalt Paver	2.302	4.128	0.747	0.004	0.296	0.000	0.272	0.000	2.302	4.128	0.747	0.004	0.296	0.0000	0.2719	0.0000
Bobcat	1.717	4.325	0.452	0.005	0.188	0.000	0.173	0.000	1.717	4.325	0.452	0.005	0.188	0.0000	0.1733	0.0000
Worker Commute	2.325	0.241	0.238	0.003	0.021	2.864	0.013	0.484	2.325	0.241	0.238	0.003	0.021	2.8643	0.0129	0.4841
Paving	0.000	0.000	2.620	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.620	0.000	0.000	0.0000	0.0000	0.0000
Total	22.973	42.363	7.860	0.045	2.003	3.819	1.827	0.645	22.973	42.363	7.860	0.045	2.003	3.819	1.827	0.645

TS-7: Test Crew

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Test Truck	1.814	2.013	0.251	0.002	0.072	0.000	0.062	0.000	1.814	2.013	0.251	0.002	0.072	0.0000	0.0623	0.0000
Worker Commute	0.775	0.080	0.079	0.001	0.007	0.955	0.004	0.161	0.775	0.080	0.079	0.001	0.007	0.9548	0.0043	0.1614
Total	2.589	2.093	0.330	0.003	0.079	0.955	0.067	0.161	2.589	2.093	0.330	0.003	0.079	0.955	0.067	0.161

15 kV Subtransmission Line Installation

	Emissions Without Watering									Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust		CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Utility Truck	3.024	3.355	0.418	0.004	0.121	0.000	0.104	0.000		3.024	3.355	0.418	0.004	0.121	0.0000	0.1038	0.0000
Drill Rig	5.200	12.287	1.162	0.017	0.541	0.000	0.497	0.000		5.200	12.287	1.162	0.017	0.541	0.0000	0.4974	0.0000
Concrete Truck	4.032	4.473	0.558	0.005	0.161	2.387	0.138	0.403		4.032	4.473	0.558	0.005	0.161	2.3869	0.1385	0.4034
Worker Commute	2.325	0.241	0.238	0.003	0.021	2.864	0.013	0.484		2.325	0.241	0.238	0.003	0.021	2.8643	0.0129	0.4841
Total	14.581	20.357	2.376	0.029	0.843	5.251	0.753	0.887		14.581	20.357	2.376	0.029	0.843	5.251	0.753	0.887

ST-2: Setting New Steel Poles

	Emissions Without Watering									Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust		CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Concrete Truck	4.032	4.473	0.558	0.005	0.161	2.387	0.138	0.403		4.032	4.473	0.558	0.005	0.161	2.3869	0.1385	0.4034
Drill Rig	5.200	12.287	1.162	0.017	0.541	0.000	0.497	0.000		5.200	12.287	1.162	0.017	0.541	0.0000	0.4974	0.0000
Crane	5.705	15.293	1.683	0.014	0.678	0.000	0.624	0.000		5.705	15.293	1.683	0.014	0.678	0.0000	0.6237	0.0000
Crew Truck	3.024	3.355	0.418	0.004	0.121	0.000	0.104	0.000		3.024	3.355	0.418	0.004	0.121	0.0000	0.1038	0.0000
Utility Truck	3.024	3.355	0.418	0.004	0.121	0.000	0.104	0.000		3.024	3.355	0.418	0.004	0.121	0.0000	0.1038	0.0000
SUV	1.937	0.201	0.198	0.002	0.017	2.387	0.011	0.403		1.937	0.201	0.198	0.002	0.017	2.3869	0.0108	0.4034
Worker Commute	3.874	0.402	0.397	0.004	0.034	4.774	0.022	0.807		3.874	0.402	0.397	0.004	0.034	4.7739	0.0215	0.8068
Total	26.797	39.367	4.835	0.051	1.673	9.548	1.500	1.614		26.797	39.367	4.835	0.051	1.673	9.548	1.500	1.614

ST-3: Installing Overhead Conductor

	Emissions Without Watering									Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust		CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Conductor Pulling Mach	4.291	10.812	1.130	0.013	0.471	0.000	0.433	0.000		4.291	10.812	1.130	0.013	0.471	0.0000	0.4332	0.0000
Cable Dolly	4.291	10.812	1.130	0.013	0.471	0.000	0.433	0.000		4.291	10.812	1.130	0.013	0.471	0.0000	0.4332	0.0000
Utility Truck	3.024	3.355	0.418	0.004	0.121	0.000	0.104	0.000		3.024	3.355	0.418	0.004	0.121	0.0000	0.1038	0.0000
Line Truck	1.923	6.277	0.494	0.006	0.299	0.000	0.263	0.000		1.923	6.277	0.494	0.006	0.299	0.0000	0.2628	0.0000
SUV	1.937	0.201	0.198	0.002	0.017	2.387	0.011	0.403		1.937	0.201	0.198	0.002	0.017	2.3869	0.0108	0.4034
Worker Commute	3.874	0.402	0.397	0.004	0.034	4.774	0.022	0.807		3.874	0.402	0.397	0.004	0.034	4.7739	0.0215	0.8068
Total	19.342	31.859	3.768	0.042	1.414	7.161	1.265	1.210		19.342	31.859	3.768	0.042	1.414	7.161	1.265	1.210

12 Kv Distribution Line Getaway

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Crew Truck	0.302	0.335	0.042	0.000	0.012	0.000	0.010	0.000	0.302	0.335	0.042	0.000	0.012	0.0000	0.0104	0.0000
Dump Truck	2.419	2.684	0.335	0.003	0.097	1.432	0.083	0.242	2.419	2.684	0.335	0.003	0.097	1.4322	0.0831	0.2420
Backhoe	2.396	4.336	0.665	0.005	0.335	0.000	0.309	0.000	2.396	4.336	0.665	0.005	0.335	0.0000	0.3086	0.0000
Worker commute	3.099	0.322	0.318	0.003	0.028	3.819	0.017	0.645	3.099	0.322	0.318	0.003	0.028	3.8191	0.0172	0.6454
Total	8.217	7.677	1.359	0.012	0.472	5.251	0.419	0.887	8.217	7.677	1.359	0.012	0.472	5.251	0.419	0.887

Telecommunications

TL-1: Substation Communications Installation

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Vans	1.550	0.161	0.159	0.002	0.014	1.910	0.009	0.323	1.550	0.161	0.159	0.002	0.014	1.9095	0.0086	0.3227
Worker Commute	0.775	0.080	0.079	0.001	0.007	0.955	0.004	0.161	0.775	0.080	0.079	0.001	0.007	0.9548	0.0043	0.1614
Total	2.325	0.241	0.238	0.003	0.021	2.864	0.013	0.484	2.325	0.241	0.238	0.003	0.021	2.864	0.013	0.484

TL-2: Overhead Communications Installation

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Bucket Truck	1.539	5.022	0.395	0.005	0.239	0.000	0.210	0.000	1.539	5.022	0.395	0.005	0.239	0.0000	0.2103	0.0000
Reel Truck	1.539	5.022	0.395	0.005	0.239	0.000	0.210	0.000	1.539	5.022	0.395	0.005	0.239	0.0000	0.2103	0.0000
Worker Commute	1.550	0.161	0.159	0.002	0.014	1.910	0.009	0.323	1.550	0.161	0.159	0.002	0.014	1.9095	0.0086	0.3227
Total	4.627	10.204	0.949	0.011	0.493	1.910	0.429	0.323	4.627	10.204	0.949	0.011	0.493	1.910	0.429	0.323

TL-3: Underground Trenching

	Emissions Without Watering								Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Flatbed	0.806	0.895	0.112	0.001	0.032	0.477	0.028	0.081	0.806	0.895	0.112	0.001	0.032	0.4774	0.0277	0.0807
Backhoe	3.194	5.781	0.887	0.006	0.447	0.000	0.411	0.000	3.194	5.781	0.887	0.006	0.447	0.0000	0.4114	0.0000
Stake Truck	0.605	0.671	0.084	0.001	0.024	0.000	0.021	0.000	0.605	0.671	0.084	0.001	0.024	0.0000	0.0208	0.0000
Crew Truck	0.605	0.671	0.084	0.001	0.024	0.000	0.021	0.000	0.605	0.671	0.084	0.001	0.024	0.0000	0.0208	0.0000
Worker Commute	1.162	0.121	0.119	0.001	0.010	1.432	0.006	0.242	1.162	0.121	0.119	0.001	0.010	1.4322	0.0065	0.2420
Total	6.373	8.138	1.285	0.010	0.538	1.910	0.487	0.323	6.373	8.138	1.285	0.010	0.538	1.910	0.487	0.323

TL-4: Underground Cable Installation

	Emissions Without Watering									Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust		CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Bucket Truck	1.539	5.022	0.395	0.005	0.239	0.000	0.210	0.000		1.539	5.022	0.395	0.005	0.239	0.0000	0.2103	0.0000
Reel Truck	1.539	5.022	0.395	0.005	0.239	0.000	0.210	0.000		1.539	5.022	0.395	0.005	0.239	0.0000	0.2103	0.0000
Worker Commute	5.811	0.603	0.595	0.006	0.052	7.161	0.032	1.210		5.811	0.603	0.595	0.006	0.052	7.1608	0.0323	1.2102
Total	8.889	10.646	1.386	0.016	0.531	7.161	0.453	1.210		8.889	10.646	1.386	0.016	0.531	7.161	0.453	1.210

	Emissions Without Watering									Emissions With Watering							
	CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust		CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Site Disturbance	0.000	0.000	0.000	0.000	0.000	5.0	0.0	1.0		0.000	0.000	0.000	0.000	0.000	2.500	0.0000	0.5200

Note:

1. Grading emission factors were used for calculating the emissions from the disturbance within the construction site. A 50% control efficiency is used for watering the site twice per day.
2. Detailed references for the emission factors can be found in Appendix B.

Appendix F1-A:
Table A6: Daily Operation Emissions

Vehicle Trips	1	trip/day/vehicle
Round Trip Distance	40	miles/RT
Number of Vehicles	2	
Vehicle Type	Passenger	

Emission Calculations

		CO	NOx	ROG	SOx	PM_{10} Exhaust	PM_{10} Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive
Emission Factors	lb/mile	0.009686	0.001005	0.000992	1.07E-05	8.60E-05	0.011934628	5.38E-05	0.002016952
Emissions	lb/day	0.775	0.080	0.079	0.00085	0.0069	0.95	0.0043	0.16

Note:
Note: Detailed references for the emission factors can be found in Appendix B.

Appendix F1-A:
Table A7: Assumptions for Proposed Project

Air Quality Emissions Calculations

Construction Assumptions for Proposed Project

1. For all on-road vehicles listed below, the round-trip distance is assumed to be 40 miles/round trip. It was assumed that each round trip would take about 2 hours. The number of round trips were estimated using the operating hours provided in the project description.

2. It was assumed that all the following vehicles travel on paved roads.

- Dump Truck
- Flat Bed
- SUV
- Cement Truck
- Pick Up

3. It was assumed that the workers commute is 40 miles per round trip per day.

4. The following vehicles were assumed to be used mainly within the construction site, and were categorized as follows:

Water Truck	On Road Heavy Duty
Boom Truck	On Road Heavy Duty
Bucket Truck	On Road Heavy Duty
Lift Truck	On Road Heavy Duty
Line Truck	On Road Heavy Duty
Reel truck	On Road Heavy Duty
Stake Truck	On Road Delivery
Test Truck	On Road Delivery
Utility truck	On Road Delivery
Crew Truck	On Road Delivery

Emission factors used on-road vehicle emission factors. Fugitive dust emissions associated with the movements of these vehicles within the construction site were included in the 10 lb/day emissions of site disturbance and grading; therefore, they were not calculated separately. Fugitive emissions from the water truck was assumed to be minimal.

5. Fugitive dust emissions associated with the movements of construction equipment within the construction site were included in the 10 lb/day emissions of site disturbance and grading; therefore, they were not calculated separately.

6. It was assumed that no stockpiles will be present on the construction site.

7. Substation Construction

Maximum daily disturbed (grading) area:	Assumed to be 0.5 acre, based on the information that a total of 5 acres will be graded during construction.
Maximum paving area:	Assumed to be 1 acre/day.

8. Waste Recycle

Assumed that vehicles required to deliver the wastes are included in the equipment list of each construction phase.

Operation Assumptions for Proposed Project

Assumed to have 2 pick-up trucks for routine maintenance, round trip distance 40 miles.

Air Quality Emissions Calculations

Appendix F1-A:
Table A8: Maximum Construction Emissions - Onsite

Maximum Daily Onsite Construction Emissions

	CO (lb/day)	NOx (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Maximum Construction Equipment Exhaust	47	82	3.7	3.4
Maximum Workers Commute	28	2.9	0.24	0.15
Maximum Fugitive Dust	NA	NA	2.7	0.6
Maximum Combined Daily Emissions	**70**	**85**	**6.6**	**4.0**
SCAQMD LST Thresholds (2.5 acre site, 25 meters to receptor)	1097	257	8	5
Exceeding Thresholds?	NO	NO	NO	NO

Note: Onsite emissions only included emissions occurred within the construction site boundary.

LST Thresholds (lb/day) [1]

At 25 meters	CO	NOx	PM_{10}	$PM_{2.5}$
5 acre	1732	371	13	8
2 acre	970	234	7	4
2.5 acre	**1097**	**257**	**8**	**4.7**

Note:

Source: Final Localized Significance Threshold Methodology (SCAQMD, 2008b), and Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds (SCAQMD, 2006).

Appendix F1-B:

Table B1: Fugitive PM_{10} Emission Factors Summary

Fugitive Emission Factors for Construction Activities

Construction Activity	Fugitive PM_{10} Emission Factor	Unit
Site Disturbance [1]	10	lb/acre/day
Vehicle Travel on Paved Road (heavy trucks) [2]	0.099	lb/VMT
Vehicle Travel on Paved Road (light trucks) [2]	0.012	lb/VMT
Site Water Spray Control Efficiency [3,4]	50%	

Note:

1. Emission rate from URBEMIS2007 model defaults (average emission factor).
2. Source: EPA AP-42, 13.2.1, see Appendix B, Table B5 for details.
3. Source: SCAQMD CEQA Air Quality Handbook, Table 11-4, November 1993. Fugitive dust control efficiency is assumed to be 50% by watering the site 2 times per day.
4. The site water spray control efficiency applies to all fugitive dust emissions within the construction site.
5. Fugitive dust emissions from operation of the construction equipment are included in the site grading dust emissions; therefore, they are not calculated separately.

Appendix F1-B:
Table B2: Light to Mid-Duty Vehicles Emission Factors

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks

Projects in the SCAQMD (Scenario Years 2007 - 2026)
Derived from Peak Emissions Inventory (**Winter**, **Annual**, **Summer**)

Vehicle Class:
Passenger Vehicles (<8500 pounds) & Delivery Trucks (>8500 pounds)

Passenger Vehicles	Year	CO	NOx	ROG	SOx	PM_{10}	$PM_{2.5}$	CO_2	CH_4
		lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT
	2009	**0.00968562**	**0.00100518**	**0.00099245**	**0.00001066**	**0.00008601**	**0.00005384**	**1.09755398**	**0.00008767**

Delivery Trucks	Year	CO	NOx	ROG	SOx	PM_{10}	$PM_{2.5}$	CO_2	CH_4
		lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT
	2009	**0.02016075**	**0.02236636**	**0.00278899**	**0.00002679**	**0.00080550**	**0.00069228**	**2.72330496**	**0.00013655**

Source: SCAQMD CEQA Handbook website: http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html. Accessed August 2008.

Appendix F1-B:
Table B3: Heavy Heavy Duty Vehicles Emission Factors

Highest (Most Conservative) EMFAC2007 (version 2.3) Emission Factors for On-Road Heavy-Heavy-Duty Diesel Trucks

Projects in the SCAQMD (Scenario Years 2007 - 2026)
Derived from Peak Emissions Inventory (**Winter**, **Annual**, **Summer**)

Vehicle Class:
Heavy-Heavy-Duty Diesel Trucks (33,001 to 60,000 pounds)

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model and extracting the Heavy-Heavy-Duty Diesel Truck (HHDT) Emission Factors.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle/emission categories listed in the tables below, by use of the following equation:

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

The HHDT-DSL vehicle/emission category accounts for all emissions from heavy-heavy-duty diesel trucks, including start, running and idling exhaust. In addition, ROG emission factors account for diurnal, hot soak, running and resting emissions, and the PM_{10} & $PM_{2.5}$ emission factors account for tire and brake wear.

The HHDT-DSL, Exh vehicle/emission category includes only the exhaust portion of PM_{10} & $PM_{2.5}$ emissions from heavy-heavy-duty diesel trucks.

	CO	NOx	ROG	SOx	PM_{10}	$PM_{2.5}$	CO_2	CH_4
	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT
2009	0.01282236	0.04184591	0.00329320	0.00004013	0.00199572	0.00175227	4.21080792	0.00015249

Source: SCAQMD CEQA Handbook website: http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html. Accessed August 2008.

Air Quality Emissions Calculations

Appendix F1-B:

Table B4: Off-road Construction Equipment Emission Factors

Construction Equipment Emission Factors (lb/hour)

Equipment Name	Hp	CO	NOX	ROG	SOX	PM	CO_2	CH_4
Aerial Lifts	Composite	0.2149	0.3748	0.0710	0.0004	0.0259	34.7	0.0064
Air Compressors	Composite	0.3699	0.7664	0.1180	0.0007	0.0547	63.6	0.0106
Bore/Drill Rigs	Composite	0.5200	1.2287	0.1162	0.0017	0.0541	165	0.0105
Cement and Mortar Mixers	Composite	0.0440	0.0626	0.0107	0.0001	0.0040	7.2	0.0010
Concrete/Industrial Saws	Composite	0.4340	0.6906	0.1363	0.0007	0.0581	58.5	0.0123
Cranes	Composite	0.5705	1.5293	0.1683	0.0014	0.0678	129	0.0152
Crawler Tractors	Composite	0.6616	1.4607	0.1961	0.0013	0.0898	114	0.0177
Crushing/Proc. Equipment	Composite	0.7440	1.5130	0.2274	0.0015	0.0976	132	0.0205
Dumpers/Tenders	Composite	0.0345	0.0662	0.0114	0.0001	0.0039	7.6	0.0010
Excavators	Composite	0.5697	1.2340	0.1584	0.0013	0.0681	120	0.0143
Forklifts	Composite	0.2366	0.5560	0.0741	0.0006	0.0302	54.4	0.0067
Generator Sets	Composite	0.3378	0.6718	0.1020	0.0007	0.0414	61.0	0.0092
Graders	Composite	0.6428	1.5237	0.1825	0.0015	0.0796	133	0.0165
Off-Highway Tractors	Composite	0.8664	2.0818	0.2470	0.0017	0.1017	151	0.0223
Off-Highway Trucks	Composite	0.7931	2.5505	0.2597	0.0027	0.0929	260	0.0234
Other Construction Equipment	Composite	0.4291	1.0812	0.1130	0.0013	0.0471	123	0.0102
Other General Industrial Equipmen	Composite	0.6281	1.7488	0.1941	0.0016	0.0779	152	0.0175
Other Material Handling Equipment	Composite	0.5801	1.6943	0.1867	0.0015	0.0753	141	0.0168
Pavers	Composite	0.5756	1.0321	0.1867	0.0009	0.0739	77.9	0.0168
Paving Equipment	Composite	0.4544	0.9400	0.1405	0.0008	0.0655	68.9	0.0127
Plate Compactors	Composite	0.0263	0.0321	0.0051	0.0001	0.0018	4.3	0.0005
Pressure Washers	Composite	0.0680	0.1020	0.0212	0.0001	0.0074	9.4	0.0019
Pumps	Composite	0.3147	0.5779	0.0991	0.0006	0.0410	49.6	0.0089
Rollers	Composite	0.4272	0.8166	0.1250	0.0008	0.0574	67.1	0.0113
Rough Terrain Forklifts	Composite	0.4815	0.8505	0.1368	0.0008	0.0719	70.3	0.0123
Rubber Tired Dozers	Composite	1.5020	3.1254	0.3508	0.0025	0.1347	239	0.0316
Rubber Tired Loaders	Composite	0.5214	1.2255	0.1530	0.0012	0.0688	109	0.0138
Scrapers	Composite	1.3277	3.0630	0.3347	0.0027	0.1321	263	0.0302
Signal Boards	Composite	0.0959	0.1678	0.0234	0.0002	0.0096	16.7	0.0021
Skid Steer Loaders	Composite	0.2565	0.3057	0.0783	0.0004	0.0276	30.3	0.0071
Surfacing Equipment	Composite	0.6589	1.6559	0.1647	0.0017	0.0639	166	0.0149
Sweepers/Scrubbers	Composite	0.5475	0.9059	0.1689	0.0009	0.0733	78.5	0.0152
Tractors/Loaders/Backhoes	Composite	0.3993	0.7227	0.1109	0.0008	0.0559	66.8	0.0100
Trenchers	Composite	0.4992	0.7910	0.1762	0.0007	0.0663	58.7	0.0159
Welders	Composite	0.2281	0.3015	0.0847	0.0003	0.0280	25.6	0.0076

Source: SCAQMD CEQA Handbook website: http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html. Accessed August 2008.

Appendix F1-B:

Table B5: Fugitive PM_{10} Emission Factors for Vehicle Travel on Paved Surfaces

Fugitive Emission Factors for Vehicle Travel on Paved Surfaces

Emission Factor [1] = (k [(sL/2)^0.65] [(W/3)^1.5]-C) x [1-(P/4N)] lb/vehicle mile traveled (vmt)

	k	sL	W	P	PM_{10} Emission factor (lb/VMT)
Heavy Duty Trucks	0.016	1.4	12	34	0.099
Passenger Vehicles and Light Duty Trucks	0.016	1.4	3	34	0.012

Note:

1. Emission factors wre calculated using EPA AP-42 13.2.1, equation 2.

Calculation Factors

Parameters	Description	Assumptions	Note
W [2]	Mean Vehicle Weight (tons)	12	For heavy duty trucks (8-16 tons).
	Mean Vehicle Weight (tons)	3	For passenger vehicles and light duty trucks and autos (1 - 5 tons).
P [3]	Number of Days > 0.01 in. Precipitation	34	Average for SCAB.
N	Days in a Year	365	

Note:

1. Weight of trucks were obtained from SCAQMD CEQA Handbook, Table A9-9-D-3.
2. Average SCAB precipitation conditions were from SCAQMD CEQA Handbook, Table A9-9-D-4.

Appendix F1-B:
Table B6: Emission Factors for Asphalt Paving

Asphalt Off-Gas ROG Emission Factor

	ROG EF	Unit	Reference
Emission Rate	2.62	lb ROG/acre	Emission rate from URBEMIS2007 model defaults.

Appendix F1-B:

Table B7: $PM_{2.5}$ Fraction of PM_{10}

Category	$PM_{2.5}$ Fraction of PM_{10}
Exhaust, Diesel Off-road Equipment	0.920
Exhaust, On-road Vehicles	0.964
Fugitive Dust - Construction	0.208
Fugitive Dust - Paved Road	0.169

Source: Appendix A of the Final $PM_{2.5}$ Calculation Methodology and $PM_{2.5}$ Significance Thresholds (SCAQMD, 2006).

Greenhouse Gas Emissions Calculations

Circuit Breakers with SF6 Gas

Description	Number	Estimated SF6 (lbs)	Total SF6 (lbs)
115 kV Breaker	5	60	300
		Total	**300**
		Assumed Leakage Rate (per year)	**0.01**
		Annual SF6 Emissions (lbs)	**3.0**
		Total Yearly Operational GHG (SF6 tons CO2 eq)	**32.53176044**
		OPERATIONAL SF6	**33**

Operational Emissions

	lbs	GWP*	total Metric Tons	rounded value
total CO2	32,049	1	14.54128857	15
total CH4	2.56	21	0.024392015	0.02
total SF6	3	23900	32.53176044	33
				48

*GWP = Global Warming Potential

Combustion Emission Calculations

		CO2	CH4	GHG CO2 Eq		
Emission Factors	lb/mile	1.097553983	8.7669E-05	1.099395032		
Emissions	lbs/yr	32048.57631	2.559934865	53.75863216	**CH4**	**CO2**
	GWP	1	21			
	MTCO2e/yr	14.54109633	0.024391394	16.05116747	**0.024391394**	**14.5411**
			14.56548772			
		OPERATIONAL MOBILE	**15**			
		OPERATIONAL TOTAL	**48**			

Total Construction Emissions (lbs.)	CO2	CH4
	lbs	lbs
PHASE		
TS-1	307349.8	25.96067
TS-2: MEER	103167.3	7.366142
TS-3: Transformer test and prep	218116.8	20.24124
TS-4: Electrical Construction	179661.9	14.45162
TS-5: Transformer Installation	199429.9	24.36632
TS-6: Paving	43686.15	4.493155
TS-7: Test Crew	39948.21	2.316407
15 kV Line Installation	40116.44	2.431046
ST-2: Setting New Steel Poles	34689.8	2.642931
ST-3: Installing Overhead Conductor	20771.39	1.499612
12 Kv Distribution Line Getaway	2239.397	0.213008
TL-1: Substation Communications Installation	10536.52	0.841622
TL-2: Overhead Communications Installation	29655.06	1.265604
TL-3: Underground Trenching	5630.901	0.625173
TL-4: Underground Cable Installation	10014.76	0.535191

Construction Emissions

	lbs	GWP*	total Metric Tons	
total CO2	109.2497	1	0.049568844	
total CH4	0	21	0	
			0.049568844	**MT CO2e**
			0.001652295	**Amortized (30 yr.)**
Total Construction Emissions			**19**	**MT CO2e / yr**

*GWP = Global Warming Potential

Greenhouse Gas Emissions Calculations

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Appendix C
Biological Survey Maps

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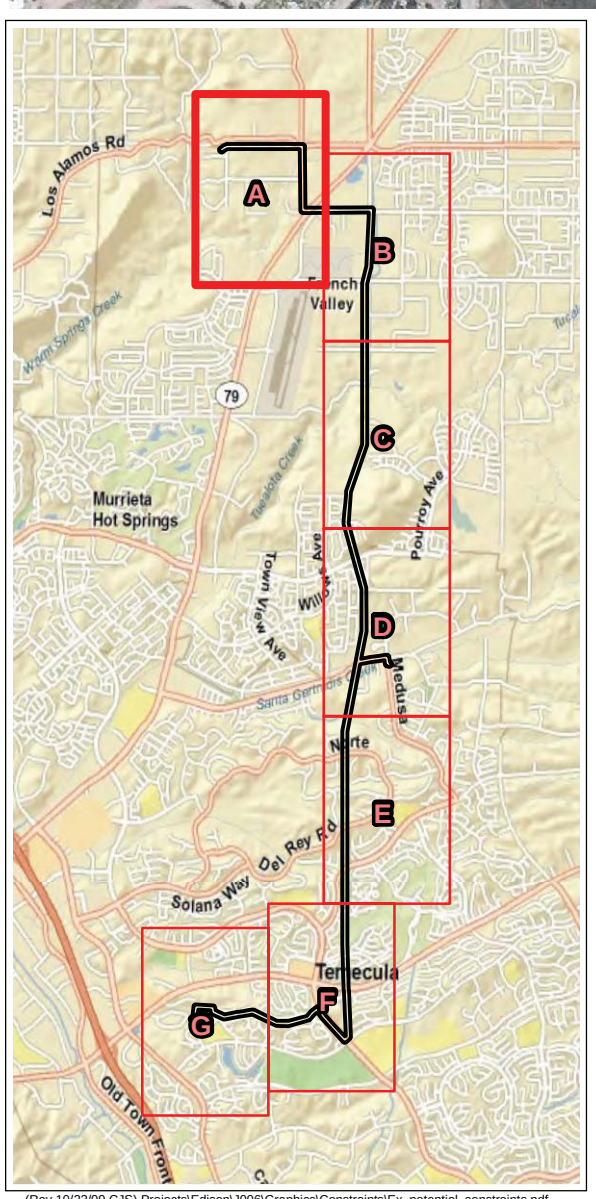
Briggs Rd
Suzi Reid Way
Los Alamos Rd
Clinton Keith Rd
Thompson Rd
Alta Loma Ln
Liberty Rd
Porth Rd
Benton Rd
Donald Rd
Crossland Rd
Ramp
Benton Rd
Unnamed Street
Crosspatch Rd
Magdas Coloradas St
Winchester Rd
Cochise Cir
Briggs Rd
Ramp
Auld Rd



Project Study Area

Potentially Suitable Habitat Exists For:

- Munz's onion
- San Diego Ambrosia
- Plummer's mariposa lily
- Raptor Nesting (Including White-Tailed Kite)
- Burrowing Owl
- California Gnatcatcher, Orange-Throated Whiptail, and White-Tailed Kite
- Drainage Feature

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Feet

Figure C-1

Potential Biological Constraints Map A

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Project Study Area

Potentially Suitable Habitat Exists For:

- Munz's onion
- San Diego Ambrosia
- Plummer's mariposa lily
- Raptor Nesting (Including White-Tailed Kite)
- Burrowing Owl
- California Gnatcatcher, Orange-Throated Whiptail, and White-Tailed Kite
- Drainage Feature

Bradford St
Stirling Ct
Glasgow St
Leon Rd
Manford Dr
Florence Ct
Leeds St
Huntsman Ct
Breitner Way
Brussels St
Winchester Rd
Erika Ct
Rotterdam St
Seine
Bonn Ct
Antwerp St
Cognac St
Rivera St
Pompei Ln
Benton Rd
Temeku St
Penfield Ln
Magdalas Coloradas St
Gironde Ct
Isle Ct
Brison Rd
Ermitage Ln
Hommage Ln
Adour Way
Sauterne St
Vignes Ct
Cheval Dr
Silex Ct
Van Gaale Ln
Cristal Ct
Live Oak Cir
Blanc Ct
Willow Cir
Filbert St
Auld Rd
Leon Rd

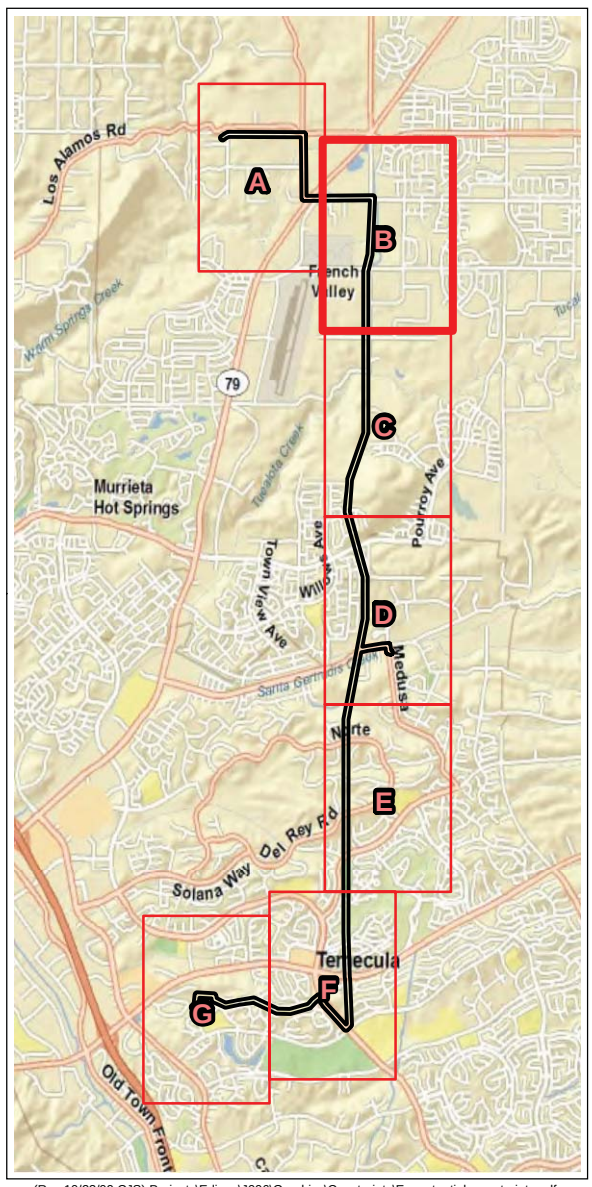

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Figure C-2

Potential Biological Constraints Map B

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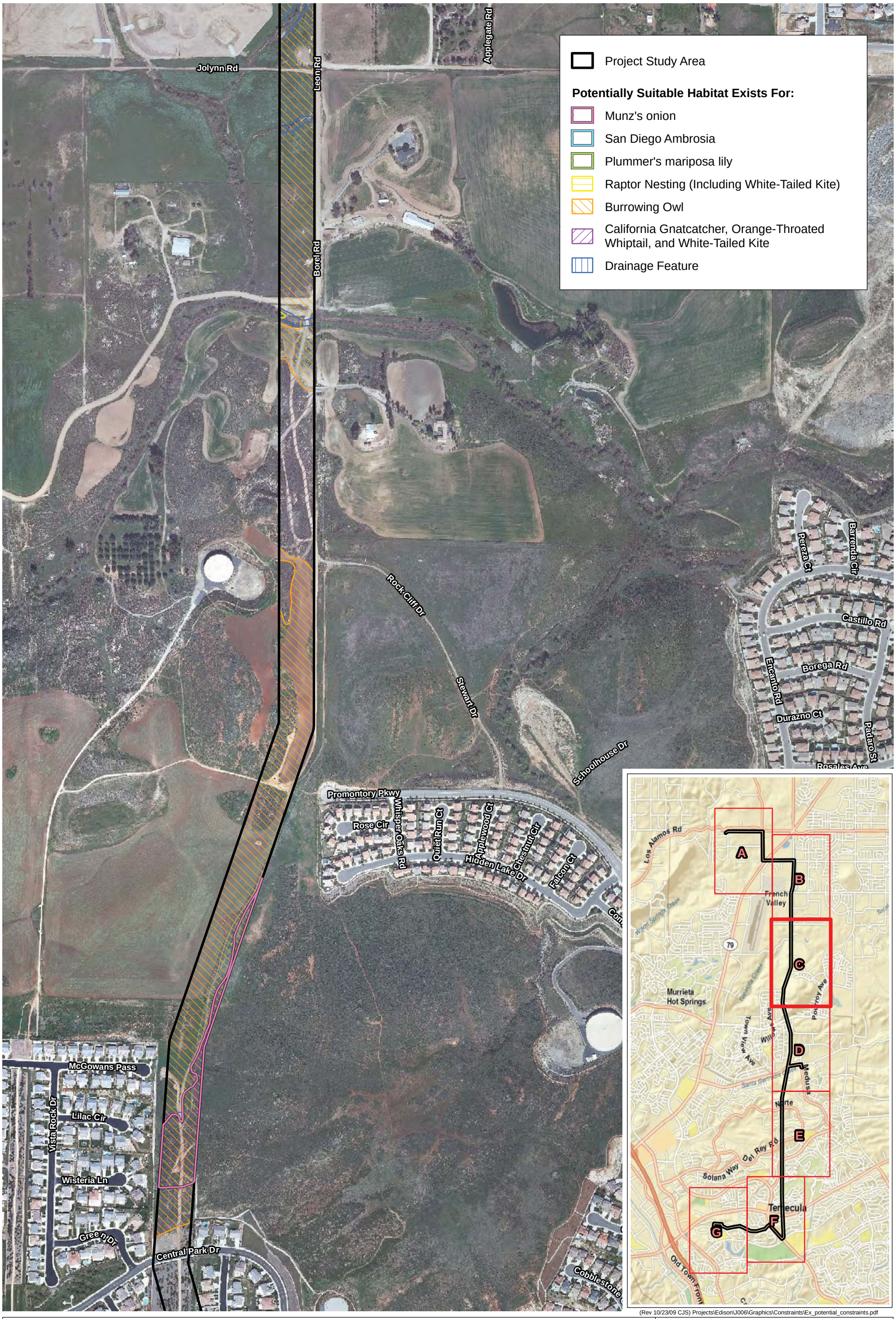

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Figure C-3

Potential Biological Constraints Map C

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Project Study Area

San Diego ambrosia proposed Critical Habitat

Potentially Suitable Habitat Exists For:

Munz's onion

San Diego Ambrosia

Plummer's mariposa lily

Raptor Nesting (Including White-Tailed Kite)

Burrowing Owl

California Gnatcatcher, Orange-Throated Whiptail, and White-Tailed Kite

Drainage Feature

Central Park Dr
Cherry Point Ln
Sugar Pine Way
Willows Ave
Summit Rock Ln
Central Park Dr
Bow Bridge Dr
Old Trail Cir
Red Bridge Rd
Lone Cir
Chandler Dr
Leon Rd
Park Point Ct
Seraphina Rd
Evian Dr
Suzi Ln
Salt Point Ct
Sugarcane Dr
Half Moon Cir
Seraphina St
Highland Vista Cir
Unnamed Street
Park Vista Cir
Northgate
Checker Ct
Andrews Way
Terrace View Cir
Seraphina Rd
Eastgate Pkwy
Diego Dr
Parkview Dr
Meadow View Cir
Jons Pl
Hillcrest Dr
Rita Way
Payton Ct
Joseph Rd
Gatlin St
Calle Colibri Rd
Medusa
Choras Ranch Rd
Marmion Cir
Cielo
Cielo
Kimberley Ln
Greenwood Ln
Liefer Rd
Deputy Rd
Pala Vis
Peggy Lou Ln
Ashmill Ct
Wellington Cir
Chauncey Way

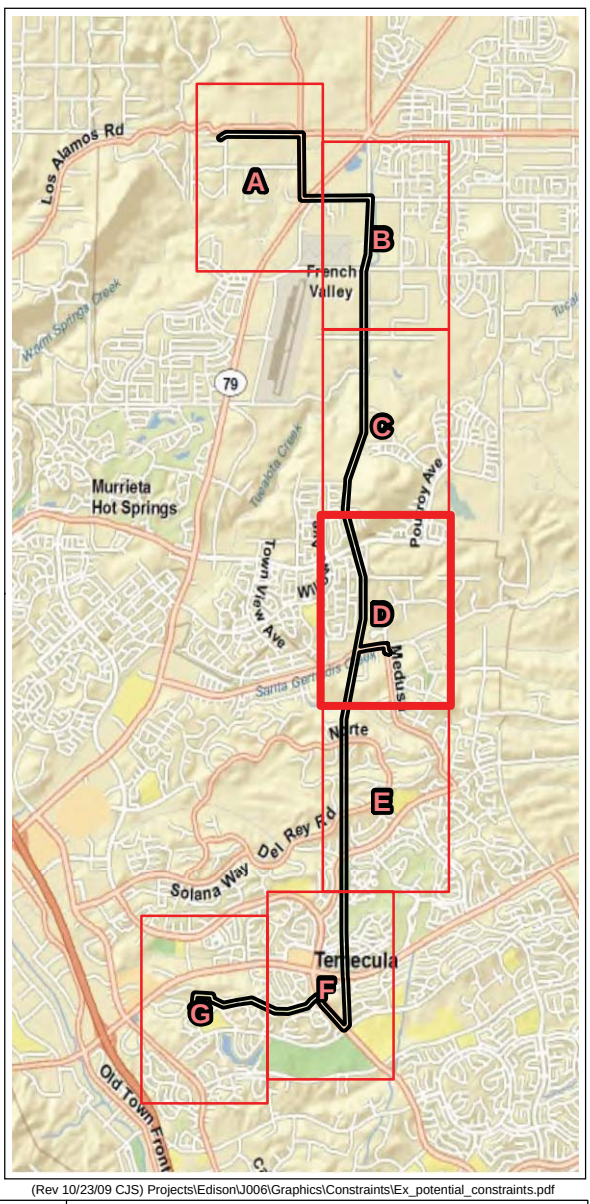

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Figure C-4

Potential Biological Constraints Map D

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Project Study Area

Potentially Suitable Habitat Exists For:

- Munz's onion
- San Diego Ambrosia
- Plummer's mariposa lily
- Raptor Nesting (Including White-Tailed Kite)
- Burrowing Owl
- California Gnatcatcher, Orange-Throated Whiptail, and White-Tailed Kite
- Drainage Feature

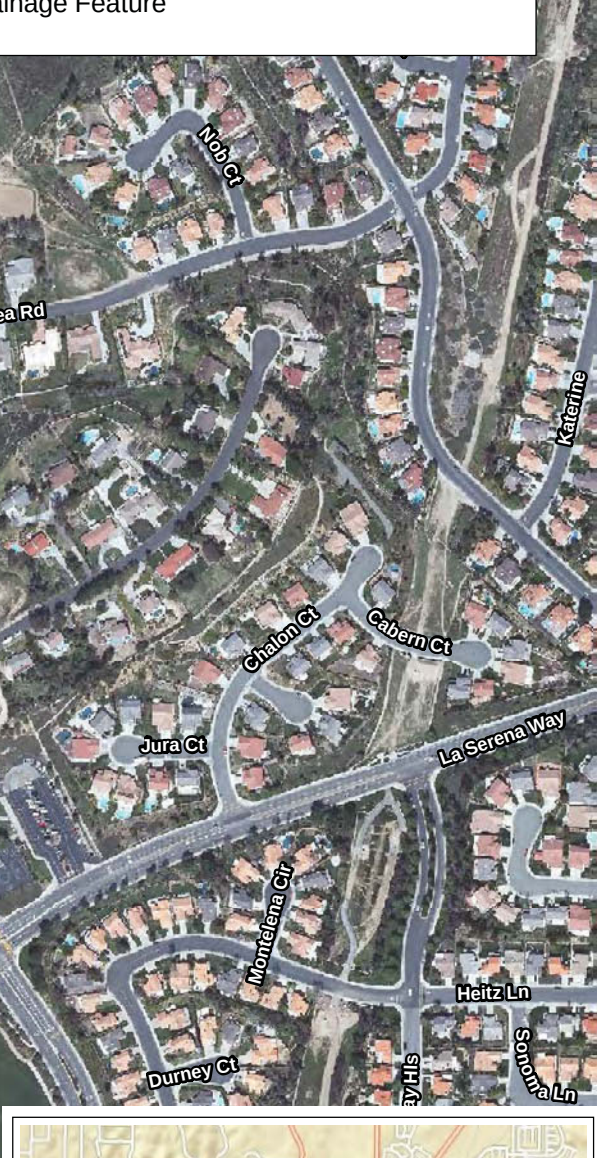

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Figure C-5

Potential Biological Constraints Map E

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Project Study Area

Potentially Suitable Habitat Exists For:

- Munz's onion
- San Diego Ambrosia
- Plummer's mariposa lily
- Raptor Nesting (Including White-Tailed Kite)
- Burrowing Owl
- California Gnatcatcher, Orange-Throated Whiptail, and White-Tailed Kite
- Drainage Feature

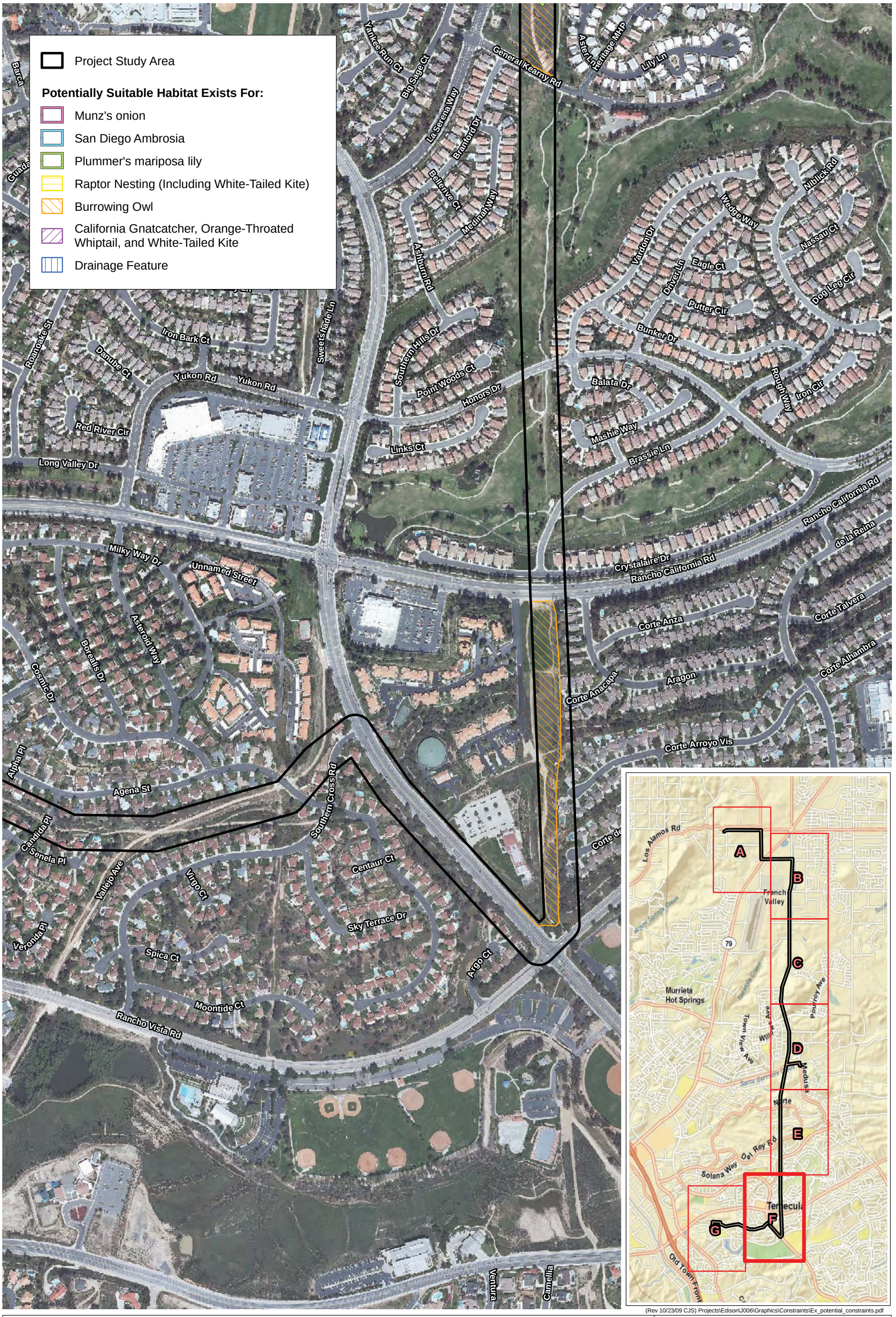

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Figure C-6

Potential Biological Constraints Map F

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Project Study Area

Potentially Suitable Habitat Exists For:

- Munz's onion
- San Diego Ambrosia
- Plummer's mariposa lily
- Raptor Nesting (Including White-Tailed Kite)
- Burrowing Owl
- California Gnatcatcher, Orange-Throated Whiptail, and White-Tailed Kite
- Drainage Feature

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Figure C-7

Potential Biological Constraints Map G

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