BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) for a Permit to Construct Electrical Facilities with Voltages Between 50 kV and 200 kV: Falcon Ridge Substation Project	)))))))	Application No. _____

PROPONENT'S ENVIRONMENTAL ASSESSMENT FALCON RIDGE SUBSTATION PROJECT

Volume 1 of 2

STEPHEN E. PICKETT
RICHARD TOM
SUMNER KOCH

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

Telephone: (626) 302-6655
Facsimile: (626) 302-1926
E-mail: sumner.koch@sce.com

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List of Acronyms

AB	Assembly Bill
AC	Alternating Current
ACSR	Aluminum Conductor Steel Reinforced
ADT	Average Daily Trip
ALUCP	Airport Land Use Compatibility Plans
AMSL	Above Mean Sea Level
ANSI	American National Standards Institute
AP	Alquist Priolo
APM	Applicant Proposed Measure
AQMP	Air Quality Management Plan
BACM	Best Available Control Measure
Bgs	Below Ground Surface
BLM	Bureau of Land Management
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAM	California Assessment Manual
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CH4	Methane
CHL	California Historical Landmarks
CIWMP	Countywide Integrated Waste Management Plan

CJUTCM	California Joint Utility Traffic Control Manual
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO2e	Carbon Dioxide emission rate
CPHI	California Points of Historical Interest
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSE	Countywide Siting Element
CWA	Clean Water Act
dB	Decibel
dBA	A-Weighted Decibel
DC	Direct Current
EIR	Environmental Impact Report
EPA	US Environmental Protection Agency
EPRI	Electric Power Research Institute
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FFD	Fontana Fire Department
FPD	Fontana Police Department
FTA	Federal Transit Administration
FMMP	Farmland Mapping and Monitoring
g	Gravity
GHG	Greenhouse Gas
G.O.	General Order
HMI/PLC	Human Machine Interface/ Programmable Logic Controller

HRI	California State Historic Resources Inventory
IOU	Investor-Owned Public Utility
in/sec	Inch per Second
IWMA	Integrated Waste Management Act
kcmil	Thousand Circular Mills
kV	Kilovolt
L90	Noise Level Exceeded 90 Percent of a Specific Time Period
Leq	Equivalent Noise Level
Lmax	Maximum Noise Level
LDL	Larson Davis Laboratories
LOS	Level of Service
LUP	Linear Underground/Overhead Projects
LWS	Light Weight Steel
KOPs	Key Observation Points
MEER	Mechanical Electrical Equipment Room
MBTA	Migratory Bird Treaty Act
MPOs	Metropolitan Planning Organizations
MRZ	Mineral Resource Zones
msl	Mean Sea Level
MSWMP	Municipal Storm Water Management Plans
MVA	Mega-volt Ampere
MVAR	Mega-Volt Amperes Reactive
MWD	Metropolitan Water District
N2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NERC	North American Electrical Reliability Corporation
NO2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service

NRHP	National Register of Historic Places
O_3	Ozone
OA	Operational Area
OES	Office of Emergency Services
OHGW	Overhead Ground Wire
OHP	Office of Historic Preservation
PCB	Polychlorinated Biphenyls
PEA	Proponent's Environmental Assessment
$PM_{2.5}$	Particulate matter measuring less than 2.5 microns
PM_{10}	Particulate matter measuring less than 10 microns
PPV	Peak Particle Velocity
PRC	California Public Resources Code
PVC	Polyvinyl Chloride
RASP	Rialto Ammunition Storage Point
RCFD	Rancho Cucamonga Fire Department
RCPD	Rancho Cucamonga Police Department
RCRA	Resource Conservation and Recovery Act
REAP	Rain Event Action Plan
RFD	Rialto Fire Department
RPD	Rialto Police Department
ROW	Right of Way
RPLI	Regional Paleontological Locality Inventory
RPZ	Runway Protection Zone
RWQCB	Regional Water Quality Control Board
SAC	Stranded Aluminum Conductor
SANBAG	San Bernardino Associated Governments
SARWQCB	Santa Ana Regional Water Quality Control Board
SB	Senate Bill
SBCFCD	San Bernardino County Flood Control District
SBCFD	San Bernardino County Fire Department
SBCSD	San Bernardino County Sheriff's Department
SBVMWD	San Bernardino Valley Municipal Water District

SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SF6	Sulfur Hexaflouride
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board
SO2	Sulfur Dioxide
SOx	Sulfur Oxides
SPCC	Spill Prevention Control Countermeasure
SRA	State Recreation Area
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution and Prevention Plan
TACs	Toxic Air Contaminants
TSP	Tubular Steel Pole
TPH	Total Petroleum Hydrocarbons
TTLC	Total Threshold Limit Concentration
USACE	United States Army Corps of Engineers
USDA	United States Department Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VdB	Vibration Decibels
WEAP	Worker Environmental Awareness Plan
WECC	Western Electricity Coordinating Council
WQMP	Water Quality Management Plan

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EXECUTIVE SUMMARY

The Proponent's Environmental Assessment (PEA) evaluates the potential environmental impacts of Southern California Edison Company's (SCE) proposed Falcon Ridge Substation Project located in the cities of Rancho Cucamonga, Rialto, Fontana and a portion of unincorporated San Bernardino County. The purpose of this project is to serve the current and projected electrical demand for electricity, and enhance reliability and system operational flexibility in the cities of Rancho Cucamonga, Rialto, Fontana and the surrounding areas of unincorporated San Bernardino County (Electrical Needs Area).

The Proposed Project has a planned operation date of June 2014 to ensure that reliable electrical service is available to serve customer electrical demand in the cities of Rancho Cucamonga, Rialto, Fontana and the surrounding areas of unincorporated San Bernardino County.

The Proposed Project would include the following major components:

- Construction of the preferred 66/12 kilovolt (kV) distribution substation (Falcon Ridge Substation) on an approximately 7.5-acre parcel. Falcon Ridge Substation would be an unattended, automated, 56 mega-volt ampere (MVA), 66/12 kV low-profile substation located in the City of Fontana.

- Installation of two new 66 kV subtransmission source lines to connect the proposed Falcon Ridge Substation to the existing Alder 66/12 kV Substation (Alder Substation) and Etiwanda 220/66 kV Substation (Etiwanda Substation).

    - One new 66 kV subtransmission source line from the existing Alder Substation would be approximately 3 miles in length and connect to the proposed Falcon Ridge Substation

- In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Alder Substation would need to be equipped and the operating and transfer buses would need to be extended, as further described in Section 3.1.2, Etiwanda and Alder Substations Associated Work.

    - One new 66 kV subtransmission source line from existing Etiwanda Substation would be approximately 9 miles in length and would connect to the proposed Falcon Ridge Substation

- In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Etiwanda Substation would need to be equipped, as further described in Section 3.1.2, Etiwanda and Alder Substations Associated Work.

- Construction of three new underground 12 kV distribution getaways

- Installation of new telecommunications facilities at the proposed Falcon Ridge Substation, installation of telecommunications fiber optic cable on the proposed 66 kV subtransmission source lines, and the modification of the existing telecommunications facilities at Etiwanda and Alder Substations to connect the proposed substation to the SCE telecommunications network.

This PEA includes the information required by the California Public Utilities Commission (CPUC) Proponent's Environmental Assessment (PEA) Guidelines (State of California Public Utilities Commission Information and Criteria List, Appendix B, Section V), as well as the CPUC's requirements for a Permit to Construct (PTC) pursuant to General Order 131-D (D.94-06-014, Appendix A, as modified by D.95-08-038). The CPUC requires applicants to provide this information for review in compliance with the mandates of the California Environmental Quality Act (CEQA). This PEA is designed to meet the above-mentioned CPUC requirements.

Following a discussion of the purpose and need for the Proposed Project (Chapter 1), the alternatives (Chapter 2), and the project description (Chapter 3), this PEA evaluates the potential environmental impacts of the Proposed Project and the Alternative Substation Site and Subtransmission Source Line Route (Chapter 4). Potential impacts are assessed for all environmental factors contained in the most recent CEQA Environmental Checklist Form (Appendix A). With implementation of Applicant Proposed Measures (APMs) listed in Table ES. 1, Applicant Proposed Measures, the PEA concludes that the majority of potential environmental effects associated with the Proposed Project would be reduced to less than significant levels; however, impacts to Air Quality would remain significant and unavoidable.

A comparison of alternatives is described in Chapter 5. Cumulative impacts identified for the Proposed Project related to Air Quality and are described in Chapter 6; however, no growth inducing impacts were identified.

The names and titles of persons assisting in the preparation of this document are listed in Appendix B.

Table ES.1 Applicant Proposed Measures

Applicant Proposed Measure	Description
APM-BIO-01: Migratory Bird Treaty Act (MBTA) and Nesting Raptors	In order to avoid impacts on nesting birds and raptors (common or special status), Project initiation shall be scheduled outside the breeding season (i.e., March 15–September 15 for nesting birds; February 1–June 30 for nesting raptors). If Project timing requires that work be initiated during this time period, a pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within 7 days prior to clearing of any vegetation or any work within 500 feet of construction areas. If the Biologist does not find any

	active nests within the impact area, the vegetation clearing/construction work shall be allowed to proceed. If the Biologist finds an active nest within the construction area and determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist will delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. The active site will be protected until nesting activity has ended to ensure compliance with the MBTA and California Fish and Game Code. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants.
APM-BIO-02: Riversidean Alluvial Fan Sage Scrub, Disturbed Riversidean Alluvial Fan Sage Scrub, Disturbed Riversidean Sage Scrub, and Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub	Project impacts on sage scrub vegetation types would be avoided and/or minimized to the maximum extent practicable. Permanent impacts to disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, and annual grassland/disturbed Riversidean alluvial fan sage scrub vegetation would be mitigated at a minimum replacement ratio of 1:1. Residual temporary impacts on undisturbed/disturbed Riversidean alluvial fan sage scrub would be restored on site and/or mitigated at a replacement ratio of 1:1. Permanent impacts on undisturbed Riversidean alluvial fan sage scrub would be mitigated at a replacement ratio of up to 3:1. Final compensation ratios for impacts to Riversidean alluvial fan sage scrub would be determined in consultation with USFWS and CDFG. A detailed restoration program shall be prepared for approval by SCE and the appropriate resource agencies. Restoration shall consist of seeding and planting containers of appropriate Riversidean alluvial fan sage scrub species. The program shall include, at a minimum, the following items: ▪ Responsibilities and qualifications of the personnel to implement and supervise the plan. ▪ Site selection. ▪ Site preparation and planting implementation. ▪ Schedule.

	▪ Maintenance plan/guidelines. ▪ Monitoring plan. ▪ Long-term preservation. Additionally, the grading limits shall be clearly marked, and temporary fencing or other appropriate markers shall be placed around any sage scrub vegetation adjacent to work areas prior to the commencement of any ground-disturbing activity or native vegetation removal. No construction access, parking, or storage of equipment or materials shall be allowed within the marked areas. SCE shall be fully responsible for implementing the Riversidean Alluvial Fan Sage Scrub Revegetation Program until the restoration areas have met the success criteria outlined in the program. SCE and the appropriate resource agencies shall have final authority over mitigation area sign-off. The site shall be monitored and maintained for a suitable number of years to ensure successful establishment of Riversidean alluvial fan sage scrub habitat within the restored and created areas, as determined by the resource agencies.
APM-PAL-01: Develop and Implement a Paleontological Monitoring Plan	A project paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists shall be retained by SCE to develop and implement a Paleontological Monitoring Plan prior to the start of ground disturbing activities for the Proposed Project. As part of the Paleontological Monitoring Plan, the project paleontologist shall establish a curation agreement with an accredited facility prior to the initiation of ground-disturbing activities. The Paleontological Monitoring Plan shall also include a final monitoring report. If fossils are identified, the final monitoring report shall contain an appropriate description of the fossils, treatment, and curation.
APM-PAL-02: Paleontological Monitoring for the Proposed Project	A paleontological monitor shall be on site to spot check ground-disturbing activities at depths greater than 5 feet during installation of the Proposed Project. If very few or no fossils remains are found during ground disturbing activities monitoring time can be reduced or suspended entirely as per recommendations of the paleontological field supervisor. If fossils are found during ground-disturbing activities, the paleontological monitor shall halt the ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment.

1.0 PURPOSE AND NEED

Southern California Edison Company (SCE) proposes to construct the Falcon Ridge Substation Project (Proposed Project) to meet forecasted electrical demands in the cities of Rancho Cucamonga, Fontana, Rialto, and the surrounding areas of unincorporated San Bernardino County. The Proposed Project would include the following components:

- Construction of a new 66/12 kilovolt (kV) distribution substation (Falcon Ridge Substation). Falcon Ridge Substation would be an unattended, automated, 56 mega-volt ampere (MVA), 66/12 kV low-profile substation
- Installation of two new 66 kV subtransmission source lines to connect the Proposed Falcon Ridge Substation to the existing Etiwanda 220/66 kV Substation (Etiwanda Substation) and Alder 66/12 kV Substation (Alder Substation)
    - One new 66 kV subtransmission source line from the existing Alder Substation would be approximately 3 miles in length and connect to the Proposed Falcon Ridge Substation
        - In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Alder Substation would need to be equipped and the operating and transfer buses would need to be extended, as further described in Section 3.1.2, Etiwanda and Alder Substations Associated Work Description
    - One new 66 kV subtransmission source line from the existing Etiwanda Substation would be approximately 9 miles in length and connect to the Proposed Falcon Ridge Substation
        - In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Etiwanda Substation would need to be equipped, as further described in Section 3.1.2, Etiwanda and Alder Substations Associated Work Description
- Construction of three new underground 12 kV distribution getaways
- Installation of new telecommunications facilities at the Proposed Falcon Ridge Substation, installation of telecommunications fiber optic cable on the Proposed 66 kV Subtransmission Source Lines, and the modification of the existing telecommunications facilities at Etiwanda and Alder Substations to connect the Proposed Substation to the SCE telecommunications network

The Proposed Project is planned to be operational in June 2014 to ensure that safe and reliable electric service is available to serve customer electrical demand.

1.1 Project Purpose

The purpose of the Proposed Project is to ensure the availability of safe and reliable electric service to meet customer electrical demand in the Electrical Needs Area.

Under the rules, guidelines, and regulations of the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC), the Western Electricity Coordinating Council (WECC), and the California Public Utilities Commission (CPUC), electric transmission, subtransmission, and distribution systems must have sufficient capacity to maintain safe, reliable, and adequate service to customers. System safety and reliability must be maintained under normal and abnormal conditions. Abnormal conditions result from equipment or line failures, maintenance outages, or outages that cannot be predicted or controlled due to weather, earthquakes, traffic accidents, and other unforeseeable events.

1.2 Project Need

The Electrical Needs Area for the Proposed Project encompasses portions of the cities of Rancho Cucamonga, Fontana, Rialto, and the surrounding areas of unincorporated San Bernardino County. The Study Area for the Proposed Project is in and near the cities of Fontana and Rialto, and is defined as the portion of SCE's territory that draws service from the existing Alder Substation and Randall 66/12 kV Substation. Alder and Randall Substations provide electrical service to approximately 46,000 metered customers and serve forecasted electrical demand within the Electrical Needs Area (Figure 1.1).

1.2.1 Meeting Electrical Demand

SCE's planning process is designed to ensure that the required capacity and operational flexibility are available to safely and reliably meet the projected peak electrical demands during periods of extreme heat under normal or abnormal conditions. Periods of extreme heat are defined as time periods when the temperature exceeds the 10-year average peak temperature and are termed "1-in-10 year heat storms." SCE adjusts the normal condition peak demand to reflect the forecasted peak demand during a 1-in-10 year heat storm. When the forecasted, peak demand during a 1-in-10 year heat storm exceeds the maximum operating limits of the existing electrical facilities, a project is proposed to keep the electrical system within specified loading limits.

The amount of electrical power that can be delivered into the Electrical Needs Area is limited to the maximum amount of electrical demand that both the Alder and Randall Substations can serve before the operating capacity limits are exceeded in a 1-in-10 year heat storm. Currently, the operating capacity of the Alder Substation combined with the Randall Substation would be limited to 277 MVA under normal operating conditions.

Table 1.1 reflects the combined capacity of the Alder and Randall Substations. Load projections depicted in Table 1.1 indicate that the two substations combined would exceed the Maximum Operating Limit capacity in the peak season of 2014 given a 1-in-10 year heat storm condition. (Table 1.1 is graphically represented in Figure 1.2.)

Table 1.1 Electrical Needs Area Substations Capacity and Peak Demand

Historical[1]	**2005**	**2006**	**2007**	**2008**	**2009**
Maximum Operating Limit (MVA)	251	251	251	251	277
Peak Demand (MVA)	191	213	232	235	223
Forecasted	**2010**	**2011**	**2012**	**2013**	**2014**
Planned Maximum Operating Limit (MVA)	277	277	277	277	277
Forecasted Peak Demand Normal Conditions (MVA)	228	235	242	253	262
Forecasted Peak Demand 1-in-10 Year Heat Storm (MVA)	250	258	266	278[2]	287
Forecasted	**2015**	**2016**	**2017**	**2018**	**2019**
Planned Maximum Operating Limit (MVA)	277	277	277	277	277
Forecasted Peak Demand Normal Conditions (MVA)	271	279	288	296	305
Forecasted Peak Demand 1-in-10 Year Heat Storm (MVA)	297	306	315	325	334

Note:
In 2008, SCE increased the capacity by 26 MVA by adding a fifth transformer bank at Alder substation.

As a result of inability of the existing substations to provide sufficient capacity to serve the Electrical Needs Area, SCE proposes the construction of a new 66/12 kV substation. As the central need for this project is to provide additional transformer capacity and distribution circuitry to serve the Electrical Needs Area, the proposed distribution substation project would address this need for the foreseeable future.

1.2.2 System Operational Flexibility

System Operational Flexibility can be described as the ability to operate an electrical system in a manner which affords the system operators the capability to alter the normal configuration of a system while maintaining electrical service or to minimize the magnitude or duration of unplanned electrical service outages. This can include activities such as outages required for equipment maintenance or new construction, restoration of electrical service due to unplanned outages, or in response to system events that may require system alterations to retain continuity of electrical service. Alterations of a system's normal configuration would generally include activities such as the closing and

[1] Historical peak demand values are derived from actual recorded loads that are temperature adjusted to reflect load that would be seen on a normal temperature day.

[2] The projected electrical demand is expected to exceed the capacity within the Electrical Needs Area in 2013; however, because SCE recognizes that CPUC licensing activities would likely not allow adequate time to permit and construct the project by 2013, the projected overload value of only 1 MVA (which results in an utilization percentage of 100.3% of the existing electrical facilities) would be addressed using the existing electrical facilities in the area to serve the 0.3% projected overload in 2013. Therefore, SCE has identified the need date of the project as June 2014.

opening of switches or circuit breakers to transfer electrical loads or to isolate elements of a system to perform maintenance or repairs.

The amount of electrical demand that may need to be transferred under the different activities mentioned above would vary greatly depending on the system conditions at the time the transfers would be needed. It can vary from as little as a small amount during an isolated activity on a distribution circuit to an amount as great as that required for the entire electrical demand served by a substation transformer.

1.3 Project Objectives

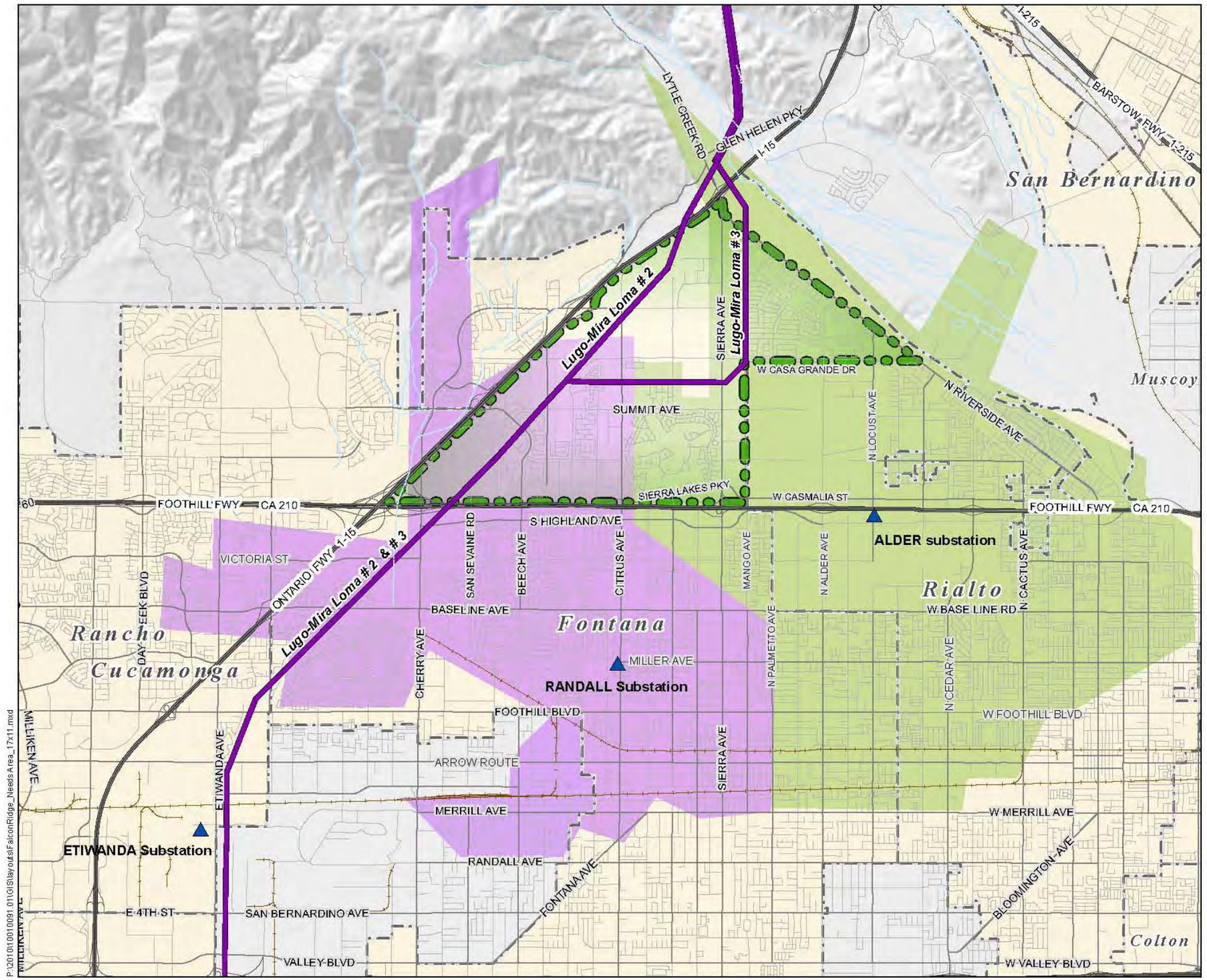
SCE has defined the following objectives to meet the Proposed Project's purpose and need as described above:

- Serving long-term projected electrical demand requirements in the Electrical Needs Area beginning in June 2014
- Maintaining system reliability within the Electrical Needs Area
- Improving system operational flexibility by providing the ability to transfer load between distribution lines and substations within the Electrical Needs Area
- Meeting the Project's need while minimizing environmental impacts
- Meeting the Project's need in a cost-effective manner
- Using existing right-of-way (ROW) to the extent feasible

SCE considered these objectives in developing a reasonable range of alternatives to the Project and to its location. Chapter 2 describes the development process and the selection of alternatives for analysis in this Proponent's Environmental Assessment (PEA).

Falcon Ridge Substation Project

Figure 1.1
Electrical Needs Area



Falcon Ridge Substation Project

Project Study Area

Electrical Needs Area

- ALDER Substation
- RANDALL Substation

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

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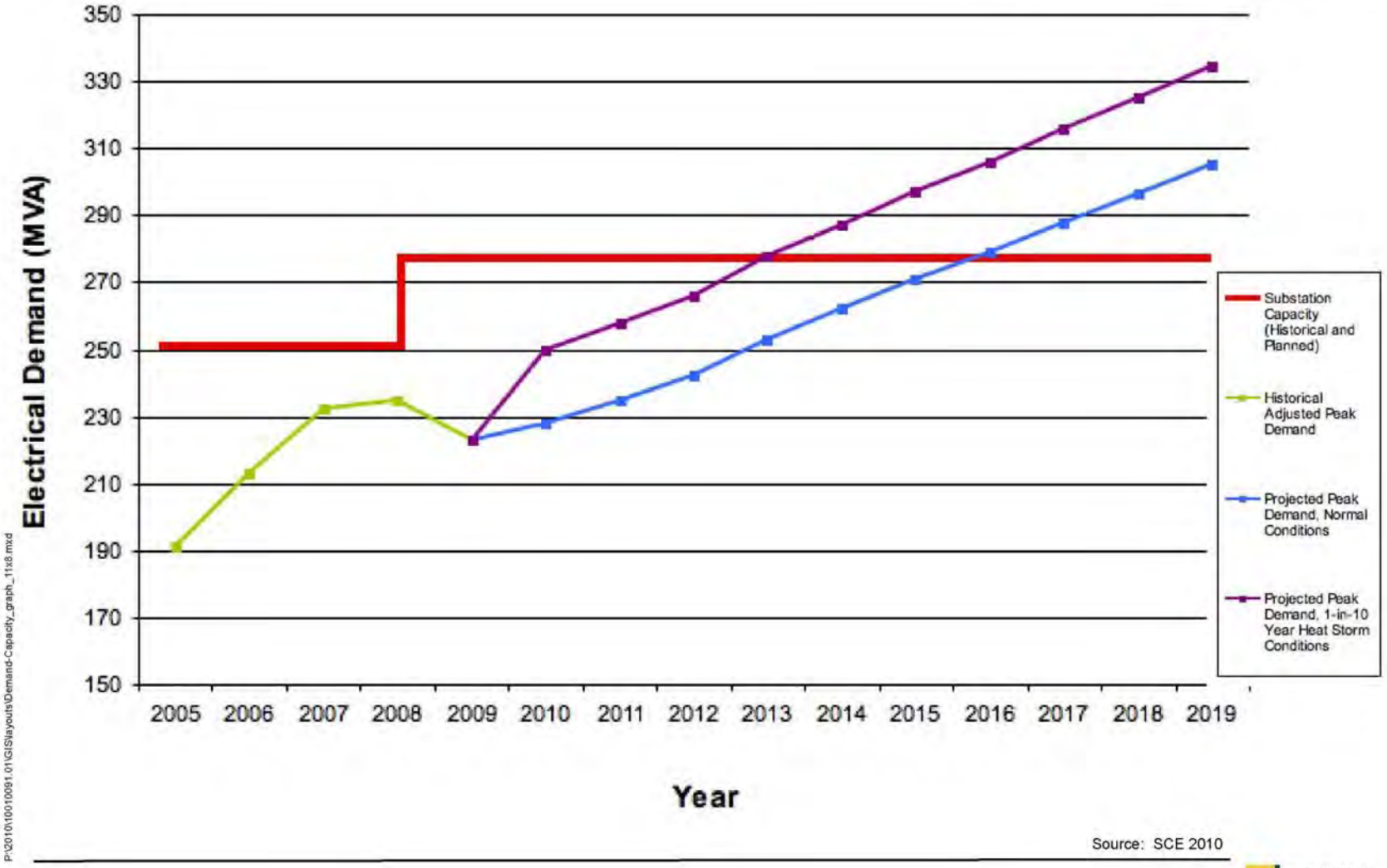
Falcon Ridge Substation Project

Figure 1.2
Electrical Capacity and Peak Demand



Source: SCE 2010

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2.0 PROJECT ALTERNATIVES

The California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15126.6(a) require consideration of a reasonable range of alternatives to the proposed project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project. CEQA Guidelines Section 15126.6(d) requires that sufficient information about each alternative be included to allow meaningful evaluation, analysis, and comparison with the proposed project. In addition, CEQA Guidelines Section 15126.6(e) requires the evaluation of a "no project" alternative to compare the impacts of approving the proposed project with the impacts of not approving the proposed project (No Project Alternative).

The following sections describe SCE's methodology and process of screening system alternatives (i.e., alternatives to the project itself) as well as site (location) alternatives for their ability to meet the project objectives. This chapter concludes with a brief description of the alternatives retained for full analysis in this PEA.

2.1 Project Alternatives

The following sub-sections explain how the project alternatives were developed, evaluated, and selected.

2.1.1 Project Alternative Evaluation Methodology

SCE follows a four-step process to develop system alternatives. These steps are summarized below:

Step 1. Perform engineering analyses to determine whether modifying the existing electrical facilities would accommodate the forecasted peak electrical demand.

Step 2. If the forecasted peak electrical demand cannot be accommodated by modifying the existing electrical facilities, then alternatives are developed that incorporate feasible infrastructure upgrades or additions.

Step 3. Evaluate each project alternative in consideration of the following criteria:

- The extent to which an alternative would substantially meet project objectives, and
- The feasibility of an alternative considering capacity limits and the ability to upgrade existing utility facilities

Step 4. If an alternative is not feasible then it is no longer considered. If it is feasible, the alternative is retained for full analysis in the PEA, consistent with CEQA and CPUC General Order 131-D.

If it is determined that new electrical facilities, upgrades, or additions are required, then siting alternatives are considered.

2.1.2 Project Alternatives Considered

Electrical demand forecasts indicate that demand in the Electrical Needs Area will exceed the collective maximum design operating limits at the existing Alder 66/12 kV Substation (Alder Substation) and Randall 66/12 kV Substation (Randall Substation) under 1-in-10 year heat storm conditions in 2014.[1] To address this issue, SCE considered three system alternatives to determine which could meet the forecasted peak demand within the Electrical Needs Area, as well as the project objectives.

- Project Alternative 1. Falcon Ridge 66/12 kV Substation Project. The construction of a new 66/12 kV unattended, automated, low-profile 56 MVA substation, with an ultimate capacity of 112 MVA within the Electrical Needs Area. This project alternative would include the construction of two new 66 kV subtransmission source lines (one source line would connect the Proposed Substation to the existing Etiwanda 220/66 kV Substation (Etiwanda Substation) and one source line would connect the Proposed Substation to the existing Alder Substation), construction of three new 12 kV underground distribution getaways, and installation of telecommunications facilities to connect the substation to SCE's existing telecommunications system.

- Project Alternative 2. A New 115/12 kV Substation Project. The construction of a new 115/12 kV unattended, automated, low-profile 56 MVA substation, with an ultimate capacity of 112 MVA within the Electrical Needs Area. This project alternative would include the construction of two new 115 kV subtransmission source lines (one line would connect the Proposed Substation to the existing Shandin 115/12 kV Substation and one line would connect the Proposed Substation to the existing Pepper 115/12 kV Substation), construction of three new 12 kV underground distribution getaways, and installation of telecommunications facilities to connect the substation to SCE's existing telecommunications system.

- Project Alternative 3. No Project Alternative. No action would be taken under the No Project Alternative.

Project Alternative 1: Falcon Ridge 66/12 kV Substation Project

Project Alternative 1 proposes a new 66/12 kV unattended, automated, low-profile 56 MVA substation which would require a parcel of land approximately three acres in size. This project alternative would include the following elements:

[1] See Chapter 1, Table 1.1 for demand description

- Installation of a 66 kV switchrack, two 66/12 kV 28 MVA transformers, a 12 kV switchrack, and two 12 kV 4.8 Megavolt Amperes Reactive (MVAR) capacitor banks

- Installation of two new 66 kV subtransmission source lines to connect the Proposed Falcon Ridge Substation to the existing Etiwanda Substation and Alder Substation:

    - One new 66 kV subtransmission source line from the existing Etiwanda Substation approximately 9 miles in length connecting to the Proposed Falcon Ridge Substation

    - One new 66 kV subtransmission source line from the existing Alder Substation approximately 3 miles in length connecting to the Proposed Falcon Ridge Substation

- Construction of three new underground 12 kV distribution getaways

- Replacement of an estimated four existing subtransmission poles with three new Light Weight Steel (LWS) poles and one new Tubular Steel Pole (TSP)

- Approximately six new wood poles, 244 new LWS poles, and 50 new TSPs installed to accommodate the two new 66 kV subtransmission source lines to serve the Proposed Falcon Ridge Substation from the existing Alder 66/12 kV and Etiwanda Substations

- In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Etiwanda Substation would need to be equipped and a 66 kV switchrack position at Alder Substation would need to be equipped and the operating and transfer bus would need to be extended

- Installation of new telecommunications facilities at the Falcon Ridge Substation, installation of telecommunications fiber optic cable on the Proposed 66 kV Subtransmission Source Lines, and modifications of the existing telecommunications facilities at Etiwanda and Alder Substation to connect the Proposed Substation to the SCE telecommunications network

Project Alternative 1 would provide the following benefits:

- Initially provide 56 MVA of additional transformer capacity to serve the Electrical Needs Area

- Improve distribution system operational flexibility and increase reliability by providing the ability to transfer electrical demand between distribution substations within the Electrical Needs Area

- Ability to serve future electrical demand through the construction of a substation that could be increased to 112 MVA of capacity

- Improve subtransmission system operational flexibility and increase reliability within the Electrical Needs Area by creating two new 66 kV subtransmission lines that would connect to the existing Etiwanda and Alder Substations

Project Alternative 2: A New 115/12 kV Substation Project

Project Alternative 2 proposes a new 115/12 kV unattended, automated, low-profile 56 MVA substation. This project alternative would include the following elements:

- Installation of a 115 kV switchrack, two 115/12 kV 28 MVA transformers, a 12 kV switchrack, and two 12 kV 4.8 MVAR capacitor banks

- Installation of two new 115 kV subtransmission source lines to connect the new substation to the Shandin 115/12 kV Substation and the Pepper 115/12 kV Substation:

    - One new 115 kV subtransmission line from the existing Shandin 115/12 kV Substation would be approximately 11 miles in length and connect to the new 115/12 kV Substation

    - One new 115 kV subtransmission line from the existing Pepper 115/12 kV Substation would be approximately 9 miles in length and connect to the new 115/12 kV Substation

- Construction of three new 12 kV underground distribution getaways

- Installation of telecommunications facilities at the new substation and telecommunications cable to and modification of the existing telecommunications facilities at Shandin 115/12 kV and Pepper 115/12 kV Substations, to connect the new substation to the SCE telecommunications network

Project Alternative 2 would provide the following benefits:

- Initially provide 56 MVA of additional transformer capacity to serve the Electrical Needs Area

- Ability to serve future electrical demand through the construction of a new substation that could be increased to 112 MVA of capacity

- Improve subtransmission system operational flexibility and increase reliability within the Electrical Needs Area by creating two new 115 kV subtransmission lines that would connect to the existing Shandin 115/12 kV and Pepper 115/12 kV Substations

Project Alternative 3 (No Project Alternative)

Project Alternative 3 would construct no additional facilities. Under the No Project Alternative, no action would be taken, and customers in the Electrical Needs Area would continue to be served by existing facilities.

2.1.3 Project Alternatives Eliminated from Further Consideration

Project Alternative 2 would provide sufficient additional transformer capacity within the Electrical Needs Area for the foreseeable future; however, this alternative would not adequately meet the objective of improving operational flexibility and reliability in the Electrical Needs Area. The source system for Randall and Alder Substation is the Etiwanda 66 kV System, whereas the source system for the proposed new substation under Project Alternative 2 would be the Vista 115 kV System. The transfer of electrical demand between the substation proposed under Project Alternative 2, Randall, and Alder Substations would require electrical demand to be first de-energized from one system and then re-energized from the other system, resulting in service outages each time a transfer is required. This is due to the inability to electrically parallel distribution systems that are served by subtransmission systems that are not at the same voltage.

Prior to a transfer between two different source systems, both source systems must be placed electrically in parallel at the subtransmission level to account for any inherent impedance and voltage mismatch between the two source systems. Without performing this procedure, excessive current flow through the distribution system may result in unsafe conditions for personnel, damage to equipment, or cause distribution circuitry to relay on overload, resulting in service outages. The Proposed Substation in Project Alternative 1 would be served from the Etiwanda 66 kV System, as are Randall and Alder Substations, and would not be subject to the transfer issues that would be experienced with the Proposed Substation in Project Alternative 2.

While Project Alternative 2 would add the required distribution transformer capacity to the Electrical Needs Area, it would result in decreased distribution reliability and system operational flexibility resulting from the constraints mentioned above that would be placed on the system through the use of 115 kV source lines.

For these reasons, Project Alternative 2, A New 115/12 kV Substation Project, is eliminated from further consideration in this PEA.

Project Alternative 3, the No Project Alternative, is not a viable option because it would not allow SCE to provide safe and reliable electrical service to its customers in the Electrical Needs Area, and would not meet the project objectives. SCE would still carry the responsibility to serve customer electrical demand, yet without sufficient electrical facilities to accommodate it. For this reason Project Alternative 3 is eliminated from further consideration in this PEA.

2.1.4 Project Alternative Recommendation

Project Alternative 1 would be a long-term solution that would provide the required additional capacity to serve the electrical demand in the Electrical Needs Area. As a result of inability of the existing substations to provide sufficient capacity to serve the Electrical Needs Area, SCE proposes the construction of a new 66/12 kV substation. As the central need for this project is to provide additional transformer capacity and distribution circuitry to serve the Electrical Needs Area, the proposed distribution

substation project would address this need for the foreseeable future. This alternative also allows SCE to maintain reliability and enhance system operational flexibility while minimizing impacts to the environment to the greatest extent possible. Therefore, SCE recommends Project Alternative 1, Falcon Ridge 66/12 kV Substation Project, as the preferred project alternative because it satisfies all of the project objectives. This alternative is carried forward in the PEA as the Proposed Project.

2.2 Substation Site Alternatives

The following sub-sections describe the evaluation of site alternatives and the selection of the preferred substation site and subtransmission source line routes.

2.2.1 Substation Site Evaluation Methodology

In order to meet the project objectives as defined in Chapter 1 (see Section 1.3, Project Objectives), a Project Study Area (shown in Chapter 1, Figure 1.1, Electrical Needs Area) was determined. The placement of a substation within this Project Study Area allows SCE to increase transformer capacity in the Electrical Needs Area and to transfer electrical demand between distribution circuits and the existing substations located near the Electrical Needs Area. The substation site was selected using the following basic requirements:

- The substation should be in an area where existing and future electrical demand can be served within the Electrical Needs Area

- The substation should be located in an area where it would maximize operational flexibility with adjacent substations and circuits

After review of potential sites located within the Project Study Area, SCE selected two potential substation location alternatives and potential subtransmission source line routes that would connect to the new substation from the existing Alder 66/12 kV Substation and Etiwanda Substation. These alternatives are shown on Figure 2.1, Alternative Substation Sites and Subtransmission Source Line Routes.

2.2.2 Substation Site Alternatives Considered

Each substation site would have a similar substation design and specifications; however, each site would have different substation configurations due to specific characteristics of each site.

Falcon Ridge Substation Project

Figure 2.1

Alternative Substation Sites and Subtransmission Source Line Routes

Project Study Area

Project Components

Substation Site	Source Line Route
Proposed	
Alternative	
Common to Both	

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

11/3/2010

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Site Alternative A

Site Alternative A is located on an approximately 7.5-acre vacant parcel currently owned by SCE. The parcel is located south of Casa Grande Avenue, east of Sierra Avenue, north of Summit Avenue and adjacent to SCE's existing transmission ROW in the City of Fontana. The parcel is triangular in shape and is bounded by SCE's existing transmission ROW to the north and west, an industrial distribution center to the east, and vacant land to the south. SCE would establish vehicular access to Site Alternative A from Sierra Avenue.

Site Alternative B

Site Alternative B is located on a 9.6-acre privately owned vacant parcel. The parcel is located on the southeast corner of Casa Grande Avenue and Sierra Avenue in the City of Fontana. The parcel is bounded by Casa Grande Avenue to the north, Sierra Avenue to the west, a vacant parcel owned by SCE to the south, and SCE's existing transmission ROW to the east. SCE would establish vehicular access to Site Alternative B from Sierra Avenue.

2.2.3 Substation Site Alternative Recommendation

Both substation site alternatives meet the Proposed Project objectives and would be suitable locations. Both Site Alternative A and Site Alternative B are currently vacant properties. Site Alternative A is currently owned by SCE and is located directly east of SCE's existing transmission ROW. Site Alternative A is located on a parcel that does not front any major streets within the City of Fontana. SCE's existing transmission ROW separates Site Alternative A from Sierra Avenue, a major arterial street through the City of Fontana. Site Alternative B, under private ownership, is located directly adjacent to Sierra Avenue and just south of Casa Grande Avenue, a major east-to-west arterial street through the cities of Fontana and Rialto.

Site Alternative A was selected as the Proposed Substation site because it is currently owned by SCE; it would be located adjacent to SCE's existing transmission ROW avoiding direct frontage to major arterial streets within the City. Site Alternative A would be located a greater distance from Sierra Avenue and Casa Grande Avenue than Site Alternative B, thereby minimizing potential visual impact to drivers and pedestrians.

2.3 Subtransmission Source Line Route Alternatives Considered

Alder Substation and Etiwanda Substation are the nearest existing substations to both Site Alternative A and Site Alternative B with sufficient capacity to serve as source-line substations for the project (see Figure 2.1, Proposed Project and Alternatives). The Proposed Project would include two new subtransmission source lines to connect the new substation with both of these two existing substations, to help ensure maximum reliability and system operational flexibility under various system conditions.

2.3.1 Alder Subtransmission Source Line Route Alternatives

With respect to the connection to Alder Substation, SCE identified two alternative subtransmission source line routes that would adequately accommodate the connection.

Alder Subtransmission Source Line Route A would connect the Proposed Falcon Ridge Substation to Alder Substation, located just south of the 210 Freeway. The new 66 kV subtransmission facilities would leave Alder Substation on existing structures to the west for approximately 600 feet and then extend north on new structures, spanning the 210 Freeway and paralleling Locust Avenue until it intersects with West Casmalia Street. At the intersection of Locust Avenue and West Casmalia Street the 66 kV subtransmission facilities would then extend west along West Casmalia Street until it intersects with Mango Avenue. At the intersection of West Casmalia Street and Mango Avenue, the 66 kV subtransmission facilities would then extend north along the future extension of Mango Avenue until it reaches the Proposed Project Substation Site. Alder Source Line Route A would be approximately 3 miles in length.

Alder Subtransmission Source Line Route B would likewise connect the Proposed Falcon Ridge Substation to Alder Substation. The new 66 kV subtransmission facilities would extend north from Alder Substation, spanning the 210 Freeway and paralleling Locust Avenue until it intersects with Casa Grande Drive. At the intersection of Locust Avenue and Casa Grande Drive, the 66 kV subtransmission facilities would then extend west along Casa Grande Drive until it intersects with North Alder Avenue. At the intersection of Casa Grande Drive and North Alder Avenue, the 66 kV subtransmission facilities would extend south along Alder Avenue until it intersects with Summit Avenue. At the intersection of Alder Avenue and Summit Avenue, the 66 kV subtransmission facilities would then extend west on Summit Avenue to the end of the street. The 66 kV subtransmission facilities would then extend north along the future Mango Avenue ROW until it reaches the Proposed Project substation site. Alder Source Line Route B would be approximately 4 miles in length.

2.3.2 Etiwanda Subtransmission Source Line Route Alternative

With respect to the connection of the Proposed Falcon Ridge Substation to Etiwanda Substation, SCE identified one subtransmission source line route, described below as Etiwanda Source Line Route, that would adequately accommodate the connection that warranted full description and consideration in this PEA. As discussed further below, SCE also considered other possible route options for the subtransmission connection to Etiwanda Substation but concluded that all other route options reviewed were significantly inferior to Etiwanda Source Line Route in terms of construction feasibility, system reliability, and potential environmental impacts, as to not merit inclusion in the PEA under CEQA Guidelines Section 15126.6.

Etiwanda Source Line Route would connect the Proposed Falcon Ridge Substation to Etiwanda Substation located just west of Etiwanda Avenue. The new 66 kV subtransmission facilities would exit Etiwanda Substation to the east, exiting the

substation property underground for approximately 1,300 feet and then rise above ground within SCE's existing transmission ROW. The new facilities would then extend northeast within SCE's existing transmission ROW until it intersects with South Highland Avenue where it would be placed underground on the west side of SCE's existing transmission ROW to cross underneath the existing 500 kV transmission line to maintain required electrical clearances. Then the subtransmission line would rise to an overhead position on the east side of SCE's existing transmission ROW where SCE's existing transmission ROW intersects South Highland Avenue. In order to avoid the freeway interchange and shorten the required span over the 210 Freeway to a feasible length, the 66 kV subtransmission facilities would divert from SCE's existing transmission ROW and extend east parallel to South Highland Avenue until it intersects with San Sevaine Road. The 66 kV facilities would then extend north paralleling San Sevaine Road (and thereby spanning the 210 Freeway at a right angle minimizing the length of the span across the freeway) until San Sevaine Road intersects with SCE's existing transmission ROW. The total length of subtransmission routing off of the existing corridor would be approximately 0.75 miles. The 66 kV subtransmission facilities would then again extend northeast within SCE's existing transmission ROW until it intersects with Summit Avenue. The 66 kV subtransmission facilities would then extend east on SCE's existing transmission ROW until it reaches the Proposed Substation site.[2] In total, Etiwanda Source Line Route would be approximately 9 miles long.

As mentioned above, during the siting process for the Proposed Project, SCE also evaluated other route options for the subtransmission connection to Etiwanda Substation. However, all other possible route options out of Etiwanda Substation presented major engineering constraints, including conflicts with existing SCE and non-SCE utility infrastructure to the east and an infeasible crossing of the 15 Freeway to the northwest. These route options were determined to be greatly inferior and completely infeasible. These constraints are summarized below. Also, importantly, any other route would necessarily involve more construction along roads running north-south and east-west, and therefore would be considerably longer (and more costly to build) than Etiwanda Subtransmission Source Line Route, which as described above, takes maximum advantage of SCE's existing transmission ROW to run northeastward (i.e., as directly as possible) from Etiwanda Substation to the new substation site.[3] No other possible route options reviewed would traverse a shorter distance of developed residential areas, or would otherwise reduce potential environmental impacts, as compared with Etiwanda Subtransmission Source Line Route. On the contrary, the longer length of the possible alternative routes would in all cases mean that a greater number of residences would be in proximity and in direct view of the route as compared to Etiwanda Subtransmission Source Line Route. In summary, use of any other route that excludes SCE's existing

[2] The SCE ROW being referred to is approximately one quarter mile north of Summit Avenue; the quarter mile distance between the ROW and Summit Avenue contains a mixture of residential, commercial, and recreational facilities.

[3] As mentioned, Etiwanda Source Line Route would depart from the existing ROW for a short distance to avoid having to cross the 210 Freeway and Interstate 15 Freeway interchange and to reduce the necessary span over the 210 Freeway to a feasible length.

transmission ROW would create more extensive environmental and potential aesthetic impacts to the surrounding communities. Accordingly, SCE has not included any other Etiwanda Subtransmission Source Line Route alternatives for further consideration in this PEA, consistent with CEQA Guidelines Sections 15126.6.

The physical constraints facing other possible route options from Etiwanda Substation to the Proposed Substation are summarized as follows:

To the east and north:

Currently there are nine above ground 66 kV lines exiting Etiwanda Substation to the east and north, all in double-circuit configurations. This level of congestion will not accommodate a new subtransmission line exiting the substation above ground to the east. Due to the current double-circuit line configurations, it is not feasible to attach the new line to any of the existing facilities. SCE explored exiting Etiwanda Substation underground for approximately 2,000 feet north along Etiwanda Avenue and then double-circuiting the new line on the existing structures of the Etiwanda-Alder-Randall 66 kV line. The Etiwanda-Alder-Randall 66 kV line is double-circuited with the Etiwanda-Declez #1 66 kV line for the first 2,000 feet coming out of Etiwanda Substation. This alternative is infeasible for the following reasons:

- To safely perform any necessary repair or maintenance activities on either the new Etiwanda-Falcon Ridge 66 kV line or the existing Etiwanda-Alder-Randall 66 kV line (which would be double-circuited in this option) would require that each be de-energized concurrently. De-energizing both subtransmission lines simultaneously would adversely affect reliability and system operational flexibility and could result in electrical service outages.

- Double circuiting these two lines would require the pole line to be rebuilt on new, considerably larger, engineered, bolted-base TSPs for a distance of approximately 9 miles. The use of engineered, bolted-base TSPs would result in insufficient clearance for necessary line crossings under two existing 500 kV transmission lines at three different locations; additionally, existing switches (both transmission and distribution), transformers, and underground conversions (dips) would not be permitted on these new structures.

- The City of Rancho Cucamonga is in the planning stages for a future project that would involve a major grade separation of the transportation infrastructure within this 2,000-foot area. This project would require extensive relocation of all the utility facilities along Etiwanda Avenue in this area.

- Additional problematic physical and geographic considerations would include: routing the line near existing school areas, within an existing MWD easement where it would not be possible to install additional new structures, and inside a 15 feet wide by one mile long right-of-way that would not offer maintenance access once existing wood structures were replaced by TSPs.

To the west:

Existing electrical infrastructure and other land uses in the area immediately west of Etiwanda Substation, as well as sensitive environmental habitat in the area, complicates the siting of a new subtransmission line through this area. A line route exiting Etiwanda Substation to the west would require crossing the 15 Freeway at a location adjacent to the existing 500 kV line in an area constrained by existing development. Crossing the freeway at this location would require a span approximately 760 feet in length adjacent to the existing 500 kV line. This crossing would present unacceptable safety and system reliability concerns including the potential for the conductors of the existing 500 kV line and Proposed 66 kV Subtransmission Source Line to come in contact with each other under severe weather conditions. A route to the west would require three freeway crossings for the new 66 kV subtransmission line to get from Etiwanda Substation to the new Falcon Ridge Substation as opposed to a single freeway crossing required for the Etiwanda Source Line Route.

Large flood control basins in the area would either require that the line be constructed through the basins (subject to flooding and no vehicle access for long periods of time) or would require even longer and more circuitous routing.

Any route exiting Etiwanda Substation to the west (roughly in the opposite direction from the Proposed Falcon Ridge Substation) would be much greater in length. Additionally, a route to the west would have potential to cause more impact to existing communities than Etiwanda Source Line Route and depending on exact routing, it would likely travel through undeveloped sensitive environmental areas unlike Etiwanda Source Line Route.

2.3.3 Subtransmission Source Line Route Alternatives and Recommendation

For all the reasons explained in the previous section above, SCE has evaluated in this PEA two alternative routes for the subtransmission connection to the Alder Substation, each of which would be coupled with the same subtransmission connection to the Etiwanda Substation. SCE designated two overall subtransmission line route alternatives described below.

Subtransmission Source Line Route Alternative 1

Subtransmission Source Line Route Alternative 1 combines Alder Subtransmission Source Line Route A with Etiwanda Subtransmission Source Line Route. The total cumulative length of Subtransmission Source Line Route Alternative 1 would be approximately 12 miles.

Subtransmission Source Line Route Alternative 2

Subtransmission Source Line Route Alternative 2 combines Alder Subtransmission Source Line Route B with Etiwanda Subtransmission Source Line Route. The total cumulative length of Subtransmission Source Line Route Alternative 2 would be approximately 13 miles.

2.3.4 Subtransmission Source Line Route Recommendation

Each Subtransmission Source Line Route Alternative has the ability to serve the Proposed Substation. However, Subtransmission Source Line Route Alternative 1 is the preferred route because it would mean construction of a shorter total distance of new subtransmission lines; it would avoid primary transportation corridors as designated by local jurisdiction planning documents; and it would have fewer facilities placed in proximity to existing residential uses than Subtransmission Source Line Route Alternative 2.

For these reasons, Subtransmission Source Line Route Alternative 1 was selected as the preferred route.

2.4 Proposed Project

SCE proposes to construct the Falcon Ridge Substation Project on Site Alternative A and utilize Subtransmission Source Line Alternative 1 (Proposed Project). The Proposed Project meets the project objectives and is described in detail in Chapter 3, Project Description.

Site Alternative B and Subtransmission Source Line Alternative 2 are evaluated in this PEA as an alternative to the Proposed Project.

3.0 PROJECT DESCRIPTION

This chapter describes the construction and operation of the Proposed Project. The Proposed Project would include the following components:

- Construction of the preferred 66/12 kilovolt (kV) distribution substation (Falcon Ridge Substation) on an approximately 7.5-acre parcel. Falcon Ridge Substation would be an unattended, automated, 56 mega-volt ampere (MVA), 66/12 kV low-profile substation located in the City of Fontana.

- Installation of two new 66 kV subtransmission source lines to connect the Proposed Falcon Ridge Substation to the existing Alder 66/12 kV Substation (Alder Substation) and Etiwanda 220/66 kV Substation (Etiwanda Substation).

    - One new 66 kV subtransmission source line from the existing Alder Substation would be approximately 3 miles in length and connect to the Proposed Falcon Ridge Substation

        - In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Alder Substation would need to be equipped and the operating and transfer buses would need to be extended, as further described in Section 3.1.2, Etiwanda and Alder Substations Associated Work.

    - One new 66 kV subtransmission source line from existing Etiwanda Substation would be approximately 9 miles in length and would connect to the Proposed Falcon Ridge Substation

        - In order to accommodate the connection of the subtransmission source line, a 66 kV switchrack position at Etiwanda Substation would need to be equipped, as further described in Section 3.1.2, Etiwanda and Alder Substations Associated Work.

- Construction of three new underground 12 kV distribution getaways

- Installation of new telecommunications facilities at the Proposed Falcon Ridge Substation, installation of telecommunications fiber optic cable on the Proposed 66 kV Subtransmission Source Lines, and the modification of the existing telecommunications facilities at Etiwanda and Alder Substations to connect the Proposed Substation to the SCE telecommunications network.

The Proposed Project components listed above are described in more detail below. The project description is based on planning level assumptions. Exact details will be determined following completion of final engineering, identification of field conditions, availability of labor, material, and equipment, and compliance with applicable environmental and permitting requirements.

3.1 Proposed Project Components

3.1.1 Falcon Ridge Substation Description

The Falcon Ridge Substation would be a new 66/12 kV unattended, automated, 56 MVA low-profile substation capable of an ultimate buildout of 112 MVA. The substation would encompass approximately 2.7 acres of an approximately 7.5-acre parcel located in the City of Fontana. SCE's remaining acreage within the Proposed Substation site may be considered for future street improvements and widening, street setbacks, safety buffers, and landscaping if needed. The dimensions of the substation would be approximately 370 feet by 337 feet. The property is triangular in shape and the property boundaries are approximately 800 feet by 800 feet by 1130 feet.

The substation components are described below and Figure 3.1, Proposed Project Substation Layout, provides a proposed substation layout.

66 kV Switchrack

The proposed 66 kV low-profile steel switchrack would be up to 25 feet high, 82 feet long, and 154 feet wide. The 66 kV switchrack would include eight 18-foot wide positions consisting of:

- two for subtransmission source lines
- two for transformer banks
- one for a bus-tie between the operating and transfer buses
- three would be vacant

Each operating and transfer bus would be 144 feet long and consist of two 1,590 kcmil (thousand circular mills) aluminum conductor steel reinforced (ACSR) for each of the three electrical phases. To protect substation personnel from the potential of electric shock each bus would be enclosed by a 6-foot high chain link fence. The surface area within the enclosure would be paved with asphalt concrete.

66 kV Circuit Breakers and Disconnect Switches

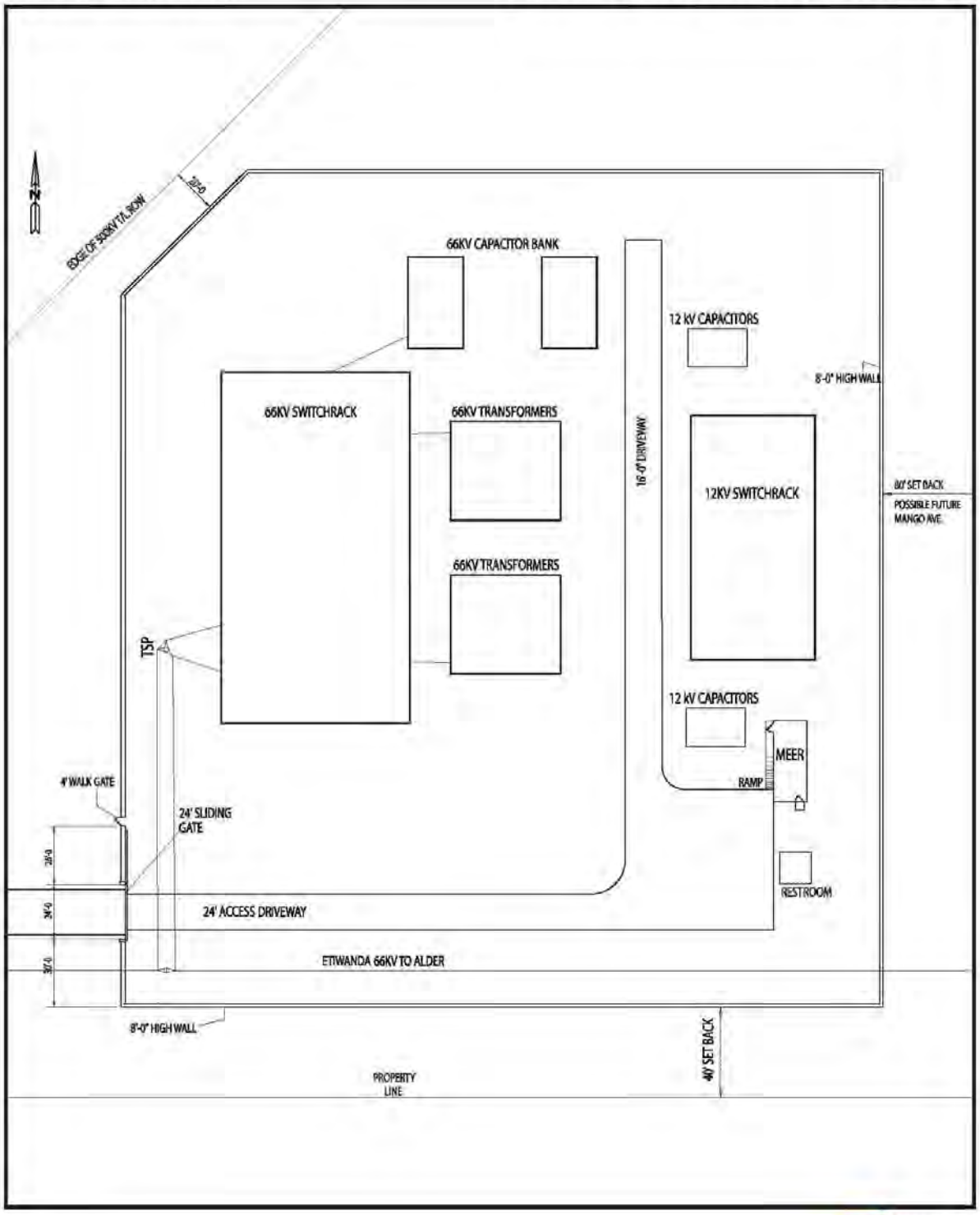
The two line positions and the two transformer bank positions would each be equipped with a circuit breaker and three group-operated disconnect switches. The bus-tie position would be equipped with a circuit breaker and two group-operated disconnect switches.

66/12 kV Transformers

Transformation would consist of two 28 MVA 66/12 kV transformers, each equipped with group-operated isolating disconnect switches on the high voltage and low voltage side, surge arrestors, and neutral current transformers. The transformer area would be approximately 25 feet high, 62 feet long, and 108 feet wide.

FALCON RIDGE SUBSTATION PROJECT **FIGURE 3.1**

Southern California Edison **PROPOSED PROJECT SUBSTATION LAYOUT** (NOT TO SCALE)



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12 kV Switchrack

The 12 kV low-profile steel switchrack would be approximately 17 feet high, 55 feet long, and 108 feet wide. The 12 kV switchrack would initially consist of eight positions with the potential to expand to 12 positions in a wrap-around arrangement. The initial steel structure installation would include eight positions consisting of:

- four distribution lines
- two transformer banks
- one bus-tie between the operating bus and transfer bus
- one bus parallel
- four vacant for future use

Capacitor Banks

There would be a total of two capacitor banks installed at the substation. Two would be 12 kV, 4.8 megavolts ampere reactive (MVAR) capacitor banks. Each of these capacitor banks would be approximately 17 feet high, 17 feet long, and 13 feet wide. To protect substation personnel from the potential of electric shock each capacitor would be enclosed by a 6-foot high chain link fence. The surface area within the enclosure would be paved with asphalt concrete.

Mechanical and Electrical Equipment Room

A mechanical electrical equipment room (MEER) is a prefabricated structure that is typically made of steel and has a grey roof and side walls. The roofline, wall joints, and doorway may have brown trim. A MEER would be equipped with two heating ventilation air-conditioning units (HVAC), a temperature and humidity sensor, a direct current (DC) paralleling box and distribution panel, a single-phase alternating current (AC) panel, two 19-inch telecom racks, a battery charger and associated batteries, nine Station Automation 2 Systems (SA-2) 19-inch racks, and a Human Machine Interface/Programmable Logic Controller (HMI/PLC). Control cable trenches would be installed to connect the MEER to the 66 kV and the 12 kV switchracks. The MEER dimensions would be approximately 11 feet tall, 36 feet long, and 20 feet wide.

Restroom Facility

The Falcon Ridge Substation would be equipped with a restroom facility. Currently, there is potable water service available at the site; however, no feasible sewer service option is available. Therefore, a portable chemical unit would be placed within the substation perimeter wall, and maintained by an outside service company. If at the time of final engineering, both sewer and water connections become available, a standalone prefabricated permanent restroom may be installed in close proximity to the MEER. The approximate dimensions of the restroom facility would be 10 feet high, 10 feet long, and 10 feet wide.

Substation Access

Access to the substation site would be from the west along a paved driveway connecting Sierra Avenue to the substation entry gate located at the western substation wall. The driveway would be asphalt concrete paved, 24 feet in width and approximately 1,000 feet in length. Approximately 700 feet of the driveway would cross SCE's existing transmission ROW and approximately 300 feet would cross the SCE property to the substation entry gate. The automated substation entry gate would be approximately 8 feet high and 24 feet wide. In addition to the substation entry gate, a 4-foot wide walk-in gate would be installed within the substation wall for personnel access into the site.

Figure 3.2 Proposed Project Substation Access, provides the proposed substation access road design.

Substation Drainage and Ground Surface Improvements

The substation project site slopes to the south at an approximate three percent grade. The existing storm water runoff from the site discharges to the south across the natural grade for a distance of approximately 2,600 feet before a portion of the flow would be diverted to the west towards an existing storm drain system along Sierra Avenue. The remainder of the flow would be diverted towards the east where it would flow into the established drainage along the western border of a landfill within the City of Rialto. Both drainage courses would ultimately flow into the regional stormwater system north of the 210 Freeway.

The substation site has an average approximate elevation of 1,710 feet above mean sea level (AMSL). The enclosed substation surface would be graded at a uniform slope of no less than one percent in a west-to-east direction. The enclosed substation surface would be covered with permeable material (crushed rock) in areas where no paving or structures would be placed. Prior to substation construction, SCE would prepare final engineering drawings for grading and drainage, and submit these drawings to the City of Fontana to obtain a grading permit.

Based on the anticipated volume of hazardous liquid materials (such as mineral oil) to be used at the site being in excess of 1,320 gallons, a Spill Prevention and Control Countermeasures (SPCC) Plan would be required in accordance with 40 CFR Parts 112.1-112.7. Typically, SPCC is a system such as curbs/valves, trenches, berms, or other features/structures designed and installed to contain spills, should they occur. This system would be part of SCE's final engineering design for the Proposed Project.

FALCON RIDGE SUBSTATION PROJECT **FIGURE 3.2**

Southern California Edison **PROPOSED PROJECT SUBSTATION ACCESS** (NOT TO SCALE)

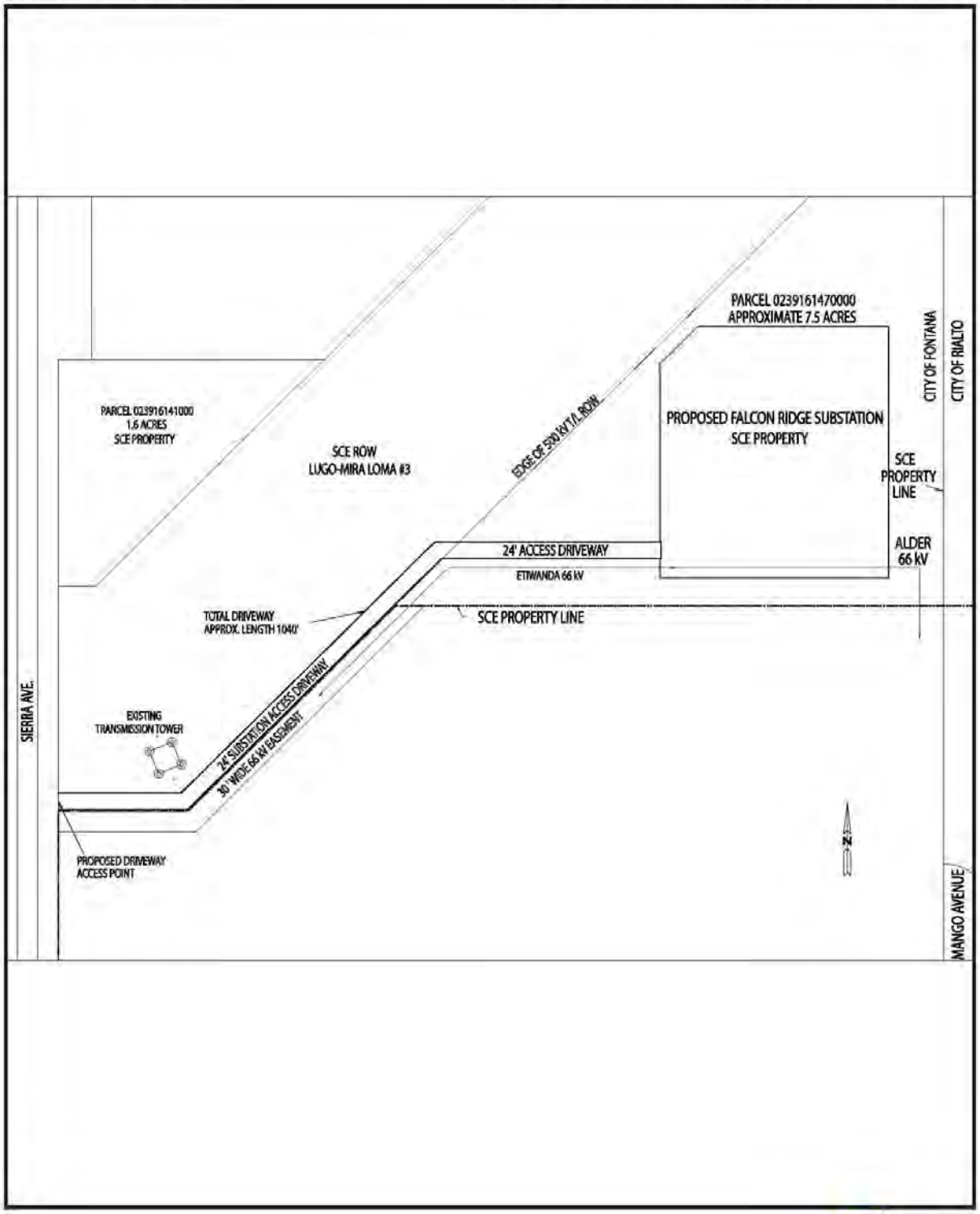

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Table 3.1 Materials and Volumes for Substation Ground Improvement and Distribution Getaways

Element	Material	Approximate Surface Area (ft^2)	Approximate Volume (yd^3)
Falcon Ridge Substation			
Site Cut	Soil	120,000	10,000
Site Fill	Soil	120,000	13,000
Import	Soil	120,000	5,000
Waste Removal (export)	Soil/Vegetation	120,000	2,000
Substation Equipment Foundations	Concrete	2,000	180
Cable Trenches	Concrete	1,900	15
66 kV Bus Enclosures	Asphalt Concrete	5,000	60
Internal Driveway	Asphalt Concrete Class II Aggregate Base	8,600 8,600	105 160
External Driveway	Asphalt Concrete Class II Aggregate Base	24,000 24,000	300 450
Substation Rock Surfacing	Rock, nominal 1 to 1½ inch per SCE standard	100,000	1,230
Block Wall Foundation	Concrete	4,620	260
Distribution Getaway/Vaults	Soil	10,200	470
Distribution Duct Banks	Soil	99,100	865
Alder Substation			
Substation Equipment Foundation	Concrete	300	24
Substation Equipment Foundation (export)	Soil	600	24
Cable Trench	Concrete	100	8
Cable Trench (export)	Soil	50	5
Etiwanda Substation			
Substation Equipment Foundation	Concrete	400	36
Substation Equipment Foundation (export)	Soil	500	31

Substation Lighting

Lighting at the Proposed Falcon Ridge Substation would consist of high-pressure sodium, low-intensity lights located in switchyards, around the transformer banks, and in areas of the yard where operating and maintenance activities may take place during evening hours

for emergency/scheduled work. Maintenance lights would be controlled by a manual switch and would normally be in the "off" position. The lights would be directed downward and shielded to reduce glare outside the facility. A beacon light indicating the operation of the rolling gate would automatically turn on once the gate opens and turn off when the gate is closed.

Substation Perimeter

The Proposed Substation would be enclosed on four sides by an 8-foot high perimeter wall. The wall typically would be constructed of light colored decorative blocks. A band of at least three strands of barbed wire would be affixed near the top of the perimeter wall inside the substation and would not be visible from the outside.

Landscaping around the Proposed Falcon Ridge Substation would be designed to filter views for the surrounding community and other potential sensitive receptors. Landscaping and irrigation would be established around the full perimeter of the substation after the perimeter wall is constructed and water service is established. Prior to commencement of the substation construction, SCE would consult with the local jurisdiction to develop an appropriate landscaping plan and perimeter wall design that would be submitted with the grading permit application for the project.

Distribution Getaways

The initial distribution getaways would consist of five new underground vaults and the connections to those vaults which would be installed outside the substation walls on either the SCE substation property, private property, or in franchise. The first getaway would exit the substation property boundary to the west for approximately 600 feet where a new vault would be installed. It would continue approximately 530 feet and then terminate in a new vault located within Sierra Avenue. The second getaway would exit the substation property boundary to the west for approximately 600 feet where a new vault would be installed. It would continue for approximately 635 feet and terminate by being capped for future use. The third getaway would exit north from the substation approximately 200 feet where a new vault would be installed. It would continue approximately 540 feet and terminate in a new vault located within the future Casa Grande Avenue. Precise vault locations cannot be determined until final engineering is performed.

Distribution circuits would be placed in an underground conduit system. At ultimate build out, the Proposed Substation could accommodate sixteen 12 kV distribution circuits. Additional electrical distribution circuits would be constructed from the Proposed Substation to serve electrical demand on an as-needed basis. These circuits would be constructed with consideration of the following guidelines:

- The location of the current load growth
- Existing electrical distribution facilities in the area
- The location of roads and existing SCE rights-of-way

The exact location and routing of each of these proposed 12 kV distribution circuits have yet to be determined. These 12 kV distribution circuits cannot be designed at this time due to the uncertainty of where load relief will be needed and where future load growth will precisely occur in addition to unforeseen changes in the physical and environmental condition of the surrounding area. Additionally, detailed design of the circuit routes requires the most complete and comprehensive details that can be provided by other utilities regarding their existing and planned infrastructure in the area. The locations of these facilities will impact the ultimate electrical distribution line routes. This information must be provided as close to the operating date as possible, to minimize design conflicts and construction delays due to additional changes. The detailed design of the initial 12 kV distribution circuits would be completed approximately 12 months prior to the operating date of the Proposed Project.

3.1.2 Etiwanda and Alder Substations Associated Work

In order to accommodate the 66 kV subtransmission source line connection at the Etiwanda Substation, the following work would be conducted:

- Equip a position of the 66 kV switchrack with two 66 kV circuit breakers, four 66 kV group-operated disconnect switches, a 66 kV underground getaway, and add two protection relays

In order to accommodate the 66 kV subtransmission line connection at the Alder Substation, the following work would be conducted:

- Extension of one position of the 66 kV operating and transfer buses to the east. Equip the new 66 kV position with one 66 kV circuit breaker, three 66 kV group-operated disconnect switches, an overhead 66 kV getaway, and add three protection relays

3.1.3 Subtransmission Source Line Route Description

The new 66 kV subtransmission source line route consists of two independent source lines that would connect to the existing Alder Substation and the Etiwanda Substation, which would supply power to the new substation, as shown in Figure 3.3 Subtransmission Source Line Route Description.

Approximately six new wood poles, 244 new Light Weight Steel (LWS) poles and 50 new Tubular Steel Poles (TSPs) would be installed to accommodate the two new 66 kV subtransmission source lines that would serve the Proposed Falcon Ridge Substation from the existing Alder and Etiwanda Substations.

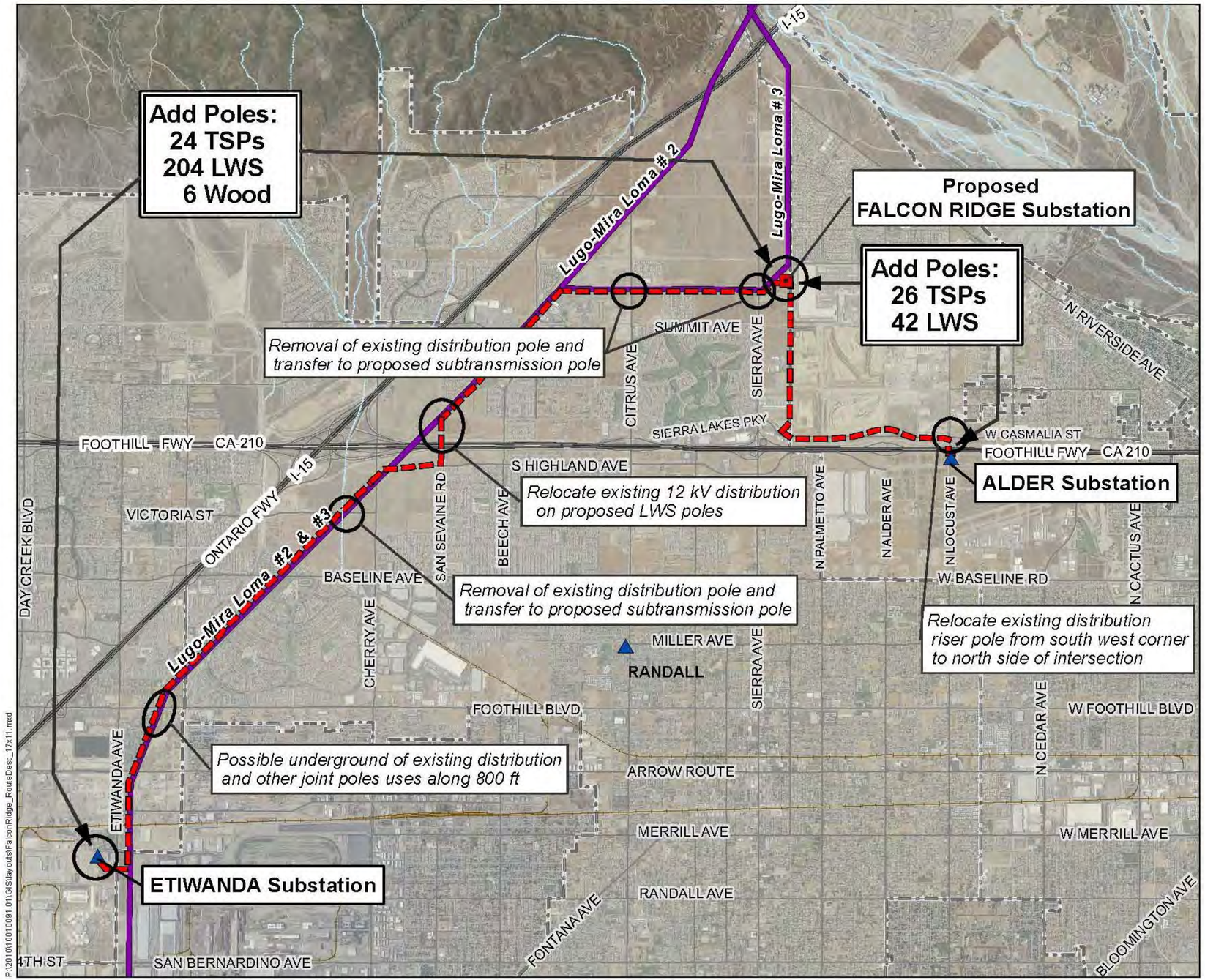
The Alder Subtransmission Source Line Route would connect to the existing Alder Substation which is located south of the 210 Freeway and east of Locust Avenue. The new 66 kV subtransmission facilities would leave Alder Substation on existing structures (Etiwanda-Alder-Randall 66 kV Subtransmission Line) to the west for approximately 600 feet and would include removing one LWS pole, replacing it with one new TSP and re-framing pole-heads to accommodate the second circuit. The new 66 kV subtransmission

facilities would then extend north on three new TSPs spanning the 210 Freeway and paralleling Locust Avenue until it intersects with West Casmalia Street. At the intersection of Locust Avenue and West Casmalia Street, one existing pole would be removed and existing distribution, telecom facilities and other joint pole users would be placed underground to the north side of West Casmalia Street. The 66 kV subtransmission facilities would then extend west on new structures along West Casmalia Street until it intersects with Mango Avenue. At the intersection of West Casmalia Street and Mango Avenue, the 66 kV subtransmission facilities would then extend north on new structures along the future extension of Mango Avenue until it reaches the Proposed Substation site. New access roads would be required to construct and maintain the subtransmission facilities, see Section 3.2.7 Overhead Subtransmission Source Line Installation, subsection Access Roads for additional information. The Alder Source Line Route would be approximately 3 miles in length.

The Etiwanda Subtransmission Source Line Route would connect to the existing Etiwanda Substation which is located south of Foothill Boulevard and west of Etiwanda Avenue. The new 66 kV subtransmission facilities would exit Etiwanda Substation underground for approximately 1,300 feet in a new duct bank to the east side of Etiwanda Avenue where the subtransmission line would rise to an overhead position via a TSP riser pole. The 66 kV subtransmission facilities would then extend northeast within SCE's existing transmission ROW until it intersects with South Highland Avenue where it would be placed underground for approximately 300 feet to maintain required electrical clearances with the existing 500 kV transmission line. The subtransmission line would rise to an overhead position where SCE's existing transmission ROW intersects South Highland Avenue and would divert from SCE's existing transmission ROW and extend east parallel to South Highland Avenue to the intersection of South Highland Avenue and San Sevaine Road. The subtransmission line would then extend north paralleling San Sevaine Road spanning the 210 Freeway at right angles until San Sevaine Road intersects with SCE's existing transmission ROW. The total length of subtransmission routing off of the existing corridor would be approximately 0.75 miles. The 66 kV subtransmission facilities would then again extend northeast within SCE's existing transmission ROW, until it intersects with Summit Avenue. The 66 kV subtransmission facilities would then extend east on SCE's existing transmission ROW[1] until it reaches the Proposed Substation site. New access roads would be required to construct and maintain the subtransmission facilities, see Section 3.2.7 Overhead Subtransmission Source Line Installation, subsection Access Roads for additional information. The Etiwanda Subtransmission Source Line Route would be approximately 9 miles long.

In order to accommodate the new 66 kV subtransmission facilities for the Etiwanda Subtransmission Source Line Route, four interset poles would be required at locations where the Proposed Etiwanda Subtransmission Source Line Route crosses the Etiwanda-Alder-Randall, Etiwanda-Randall, and the Etiwanda-Declez #1 66 kV subtransmission

[1] The SCE ROW is approximately 0.25 mile north of Summit Avenue; the 0.25 mile between SCE's existing transmission ROW and Summit Avenue contains a mixture of residential, commercial and recreational facilities.



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Falcon Ridge Substation Project

Figure 3.3

Subtransmission Source Line Route Description

Project Components

Substation Site — Preferred

Source Line Route

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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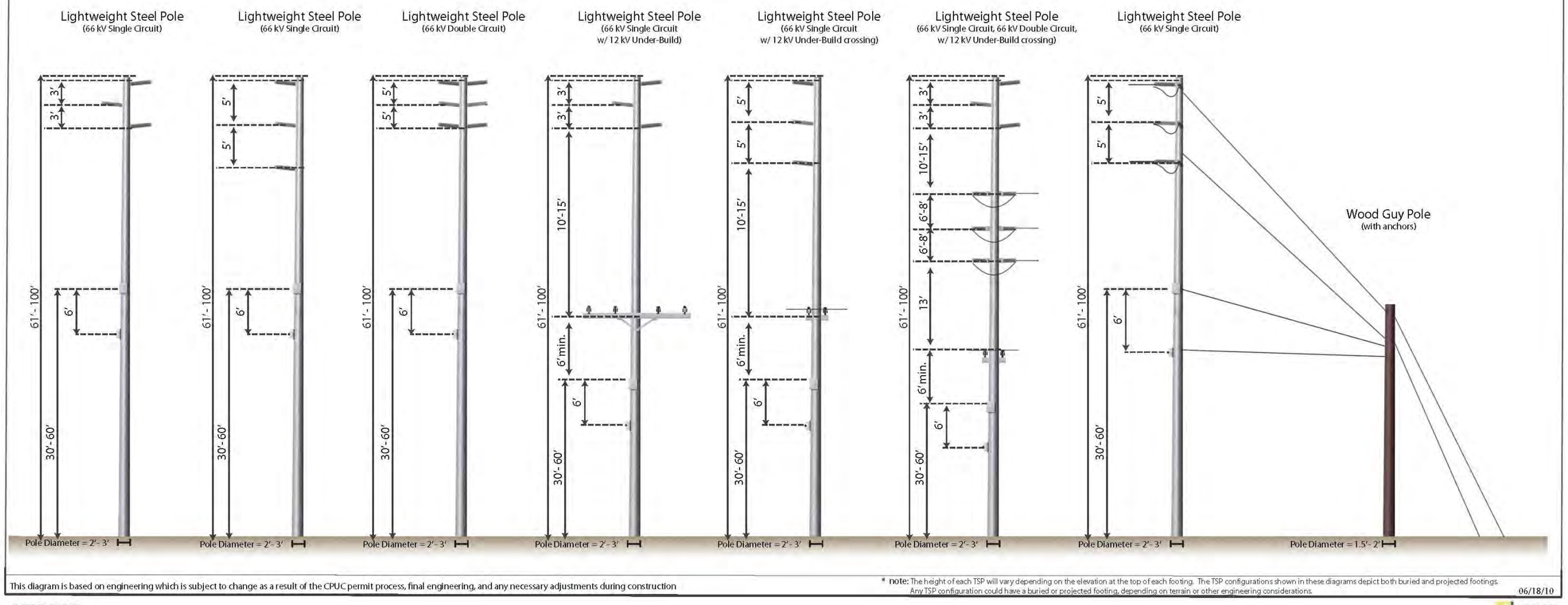
FALCON RIDGE SUBSTATION
Southern California Edison

FIGURE 3.4a
SUBTRANSMISSION STRUCTURES



This diagram is based on engineering which is subject to change as a result of the CPUC permit process, final engineering, and any necessary adjustments during construction

* note: The height of each TSP will vary depending on the elevation at the top of each footing. The TSP configurations shown in these diagrams depict both buried and projected footings. Any TSP configuration could have a buried or projected footing, depending on terrain or other engineering considerations.

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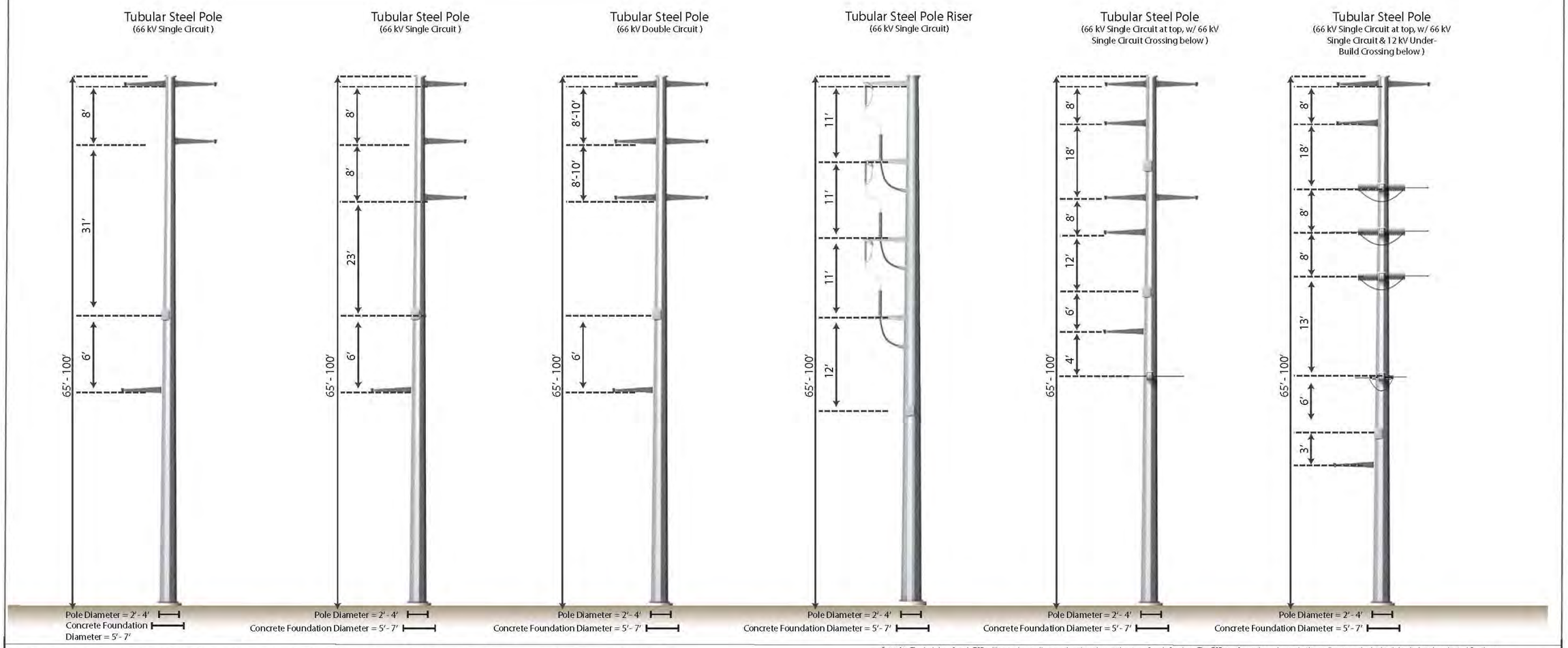
FALCON RIDGE SUBSTATION
Southern California Edison

FIGURE 3.4b
SUBTRANSMISSION STRUCTURES



This diagram is based on engineering which is subject to change as a result of the CPUC permit process, final engineering, and any necessary adjustments during construction

* note: The height of each TSP will vary depending on the elevation at the top of each footing. The TSP configurations shown in these diagrams depict both buried and projected footings. Any TSP configuration could have a buried or projected footing, depending on terrain or other engineering considerations.

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lines. Additionally, three existing wood poles located within existing ROW between Foothill Boulevard and Baseline Avenue would be replaced with TSPs. There is the potential for re-framing pole-heads along portions of this route.

The subtransmission source lines would utilize wood poles, LWS poles, and TSPs. Each structure would support, at a minimum, polymer post insulators and dead-end insulators, 954 kcmil stranded aluminum conductor (SAC) and 4/0 ACSR fault return conductor. The dimensions of the proposed pole types are shown in Figure 3.4a and Figure 3.4b Typical Subtransmission Structures and summarized in Table 3.2 Typical Subtransmission Structure dimensions. Because the Proposed Project is located in a raptor concentration area, all 66 kV subtransmission structures would be designed consistent with the Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006.[2]

Table 3.2 Typical Subtransmission Structure Dimensions

Pole Type	Approximate Diameter	Approximate Height Above Ground	Approximate Auger Hole Depth	Approximate Auger Hole Diameter[3]
Wood	1 to 2 feet	35 to 75 feet	8 to 10 feet	2 to 4 feet
Light Weight Steel (LWS)	2 to 3 feet	65 to 100 feet	8 to 11 feet	2 to 4 feet
Tubular Steel Pole (TSP)	2 to 4 feet	70 to 100 feet	Not Applicable	Not Applicable
TSP Concrete Foundation	5 to 8 feet	2 to 4 feet	20 to 30 feet	5 to 8 feet

TSPs utilized for the Proposed Project would be approximately 2 to 4 feet in diameter and extend approximately 70 to 100 feet above ground. The TSPs would be attached to concrete foundations that would extend underground approximately 20 to 30 feet with up to 2 to 4 feet of concrete visible above ground. TSPs are typically used where:

- Site limits or restriction prohibit guy and anchor installations;
- Strength or height limits of a wood or LWS pole are exceeded;
- Design requires TSPs as opposed to LWS poles;

[2] Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006 published by the Edison Electric Institute and the Avian Power Line Interaction Committee in collaboration with the Raptor Research Foundation. This document can be found at http://www.aplic.org/suggestedpractices2006(LR).pdf

[3] Based on anticipated conditions in the field, SCE would likely install wood poles, TSP foundations, and LWS poles using a backhoe, therefore there would not be an applicable auger diameter. For further information regarding pole installation see Section 3.2.7 Overhead Substransmission Source Line Installation, subsection Wood and Lightweight Steel Pole Installation.

- TSPs are a condition of the easement; or

- The site is subject to extreme or severe environmental conditions such as damage from fire, birds, insects, or weather

LWS poles utilized for the Proposed Project would be direct buried (to a depth of approximately 8 to 11 feet below the ground surface) and extend approximately 65 to 100 feet above ground. The diameter of the LWS poles would be approximately 2 to 3 feet.

Wood poles utilized for the Proposed Project would be direct buried (to a depth of approximately 8 to 10 feet below ground surface) and extend approximately 35 to 75 feet above ground. The diameter of the wood poles would be approximately 1 to 2 feet.

Relocation of Existing Distribution Facilities

In order to accommodate the proposed 66 kV subtransmission facilities, some of the existing 12 kV distribution facilities would need to be modified. The following modifications are based on preliminary engineering and the facilities as they currently exist in the field:

- Location 1: The removal of one existing distribution pole located near Sierra Avenue and SCE's existing transmission ROW. Existing distribution facilities would be transferred to a new proposed subtransmission pole at or near this location.

- Location 2: The removal of one existing distribution pole located near Citrus Avenue and SCE's existing transmission ROW. Existing distribution facilities would be transferred to a new proposed subtransmission pole at or near this location.

- Location 3: Existing 12 kV distribution facilities consisting of approximately 10 poles would be removed and re-located on the proposed LWS poles located at San Sevaine from the 210 Freeway to SCE's existing transmission ROW.

- Location 4: The removal of one existing distribution pole located near Victoria Avenue and SCE's existing transmission ROW. Existing distribution facilities would be transferred to a new proposed subtransmission pole at or near this

- Location 5: The relocation of an existing riser pole from the south west corner of the intersection of West Casmalia Street and Locust Avenue to the north side of the intersection.

- Location 6: Approximately 800 feet and 12 existing poles with distribution and other joint pole facilities would be placed underground near Foothill Boulevard and SCE's existing transmission ROW; however, this would be dependent upon ultimate street width and future street improvements.

3.1.4 Telecommunications Description

New telecommunications equipment at the Proposed Falcon Ridge Substation would be integrated into and monitored through SCE's existing telecommunications system. New telecommunications infrastructure would connect the Falcon Ridge Substation to both Alder Substation and Etiwanda Substation. The new telecommunication infrastructure would provide protective relaying, data transmission, and telephone services for the Falcon Ridge, Alder, and Etiwanda Substations.

The new telecommunications infrastructure would include additions and modifications to the existing system. One new fiber optic cable route would connect the Falcon Ridge Substation to the existing Alder Substation and one new fiber optic cable route would connect Falcon Ridge Substation to the existing Etiwanda Substation. Figure 3.5 Proposed Telecommunications Route details the proposed fiber optic cable routes.

The proposed fiber optic cable routes are described as follows:

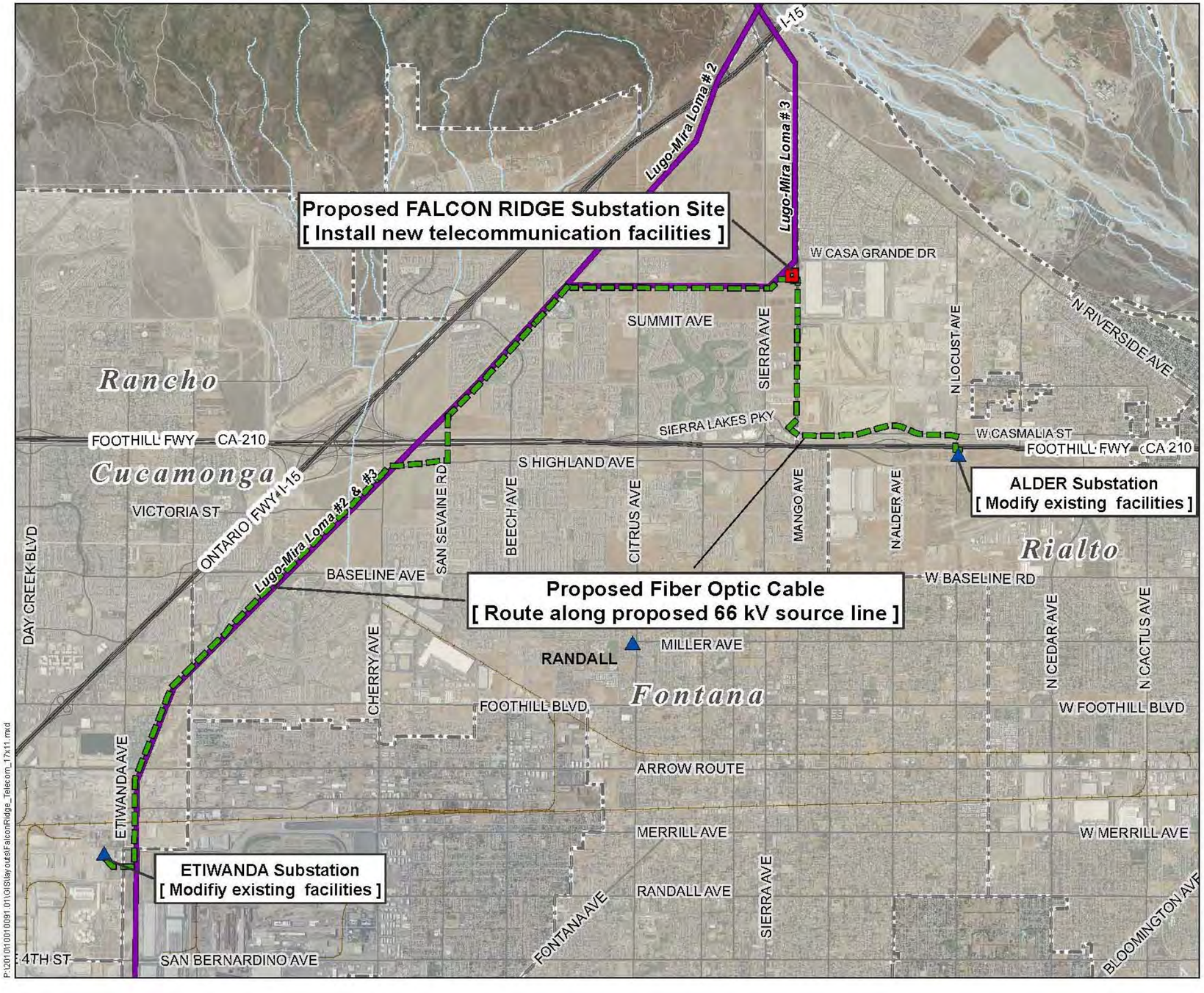
- The fiber optic cable route that would connect Alder Substation and the Proposed Falcon Ridge Substation would begin by exiting the existing Alder Substation to the west. From inside Alder Substation, originating at the MEER, cable would be placed in new underground duct bank for approximately 25 feet to the east, then continue north and west in new underground duct bank approximately 265 feet to a new manhole and continue approximately 10 feet to an existing subtransmission riser pole. Typical manhole dimensions are 4 feet long, 4 feet wide and 5 feet high. In an overhead position, the fiber optic cable would then continue approximately 13,850 feet along the new Alder 66 kV subtransmission source line route to a proposed subtransmission riser pole located near the south side of the Proposed Substation approximately 195 feet west of the Mango Avenue extension. The cable would transition to an underground position on a proposed subtransmission riser pole along the Proposed Alder Subtransmission Source Line Route; there would be one new manhole located near the proposed subtransmission riser pole. The fiber optic cable would then proceed north in a new underground duct bank to the MEER at the Proposed Falcon Ridge Substation for approximately 1,000 feet. The entire route is approximately 15,345 feet in length.

- The fiber optic cable route that would connect Etiwanda Substation and the Proposed Falcon Ridge Substation would begin by exiting the Proposed Falcon Ridge Substation to the west. From inside Falcon Ridge Substation, originating at the MEER, cable would be placed in a new underground duct bank for approximately 1,000 feet to a new vault located near a proposed subtransmission riser pole at the southwest corner of the substation. There would be one new manhole near the proposed subtransmission riser pole at the southwest corner of the substation. The cable would rise on a proposed subtransmission riser pole located along the Proposed Etiwanda Subtransmission Source Line Route. In an overhead position, the fiber optic route would then continue approximately 19,300 feet along the Proposed Etiwanda Subtransmission Source Line Route to a

proposed subtransmission riser pole along the north side of South Highland Avenue approximately 925 feet east of Cherry Avenue; at the intersection of South Highland Avenue and Cherry Avenue there would be three new manholes. The cable would drop on this proposed subtransmission riser pole along the Proposed Etiwanda Subtransmission Source Line Route. The fiber optic cable would then proceed west approximately 925 feet in a new underground duct bank to Cherry Avenue, turn south and continue approximately 325 feet in a new underground duct bank to SCE's existing transmission ROW where it would turn southwest and continue approximately 300 feet to a new vault located near a proposed subtransmission riser pole along SCE's existing transmission ROW approximately 350 feet west of Cherry Avenue. The cable would rise on a proposed subtransmission riser pole located along the Proposed Etiwanda Subtransmission Source Line Route. The cable would transition underground on a Proposed Etiwanda Subtransmission Source Line pole located approximately 500 feet south of Napa Street, where it would continue south in a new underground trench for approximately 200 feet and connect to the Proposed Etiwanda Subtransmission Source Line underground trench. The cable would continue west underground in the Proposed Etiwanda Subtransmission Source Line trench for approximately 1,300 feet to Etiwanda Substation. The cable would continue west approximately 1,000 feet in a new underground duct bank inside Etiwanda Substation to the MEER. Three manholes would be required for this section. The entire route would be approximately 45,000 feet in length.

New communications equipment would be installed at the Proposed Falcon Ridge Substation within the proposed MEER.

Upgrades to existing optical communications equipment would occur at Etiwanda, Alder, and Randall Substations. All upgrades at the existing substations would occur within the existing MEER; therefore, no additional ground disturbance is associated with the proposed telecommunications work.



Falcon Ridge Substation Project

Figure 3.5
Proposed Telecommunications Route

Project Components

Substation Site
- Preferred

Fiber Optic Cable Route

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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3.2 Proposed Project Construction Plan

Construction of the Proposed Project would include activities associated with land surveying, replacement of existing poles, installation of new subtransmission poles, substation site construction, and telecommunications installation. In addition, construction support activities, such as the establishment of one or more staging areas and the development of access roads extending to construction sites would be required.

3.2.1 Storm Water Pollution Prevention Plan

Construction of the Proposed Project would disturb a surface area greater than one acre. Therefore, SCE would be required to obtain coverage under the Statewide Construction General Permit (Order No. 2009-0009-DWQ) from the Santa Ana Regional Water Quality Resources Control Board. To obtain coverage under this permit, SCE would prepare a Storm Water Pollution Prevention Plan (SWPPP) inclusive of project information, design features, monitoring and reporting procedures, as well as Best Management Practices (BMPs). Commonly used BMPs are stormwater runoff quality control measures (boundary protection), dewatering procedures, spill reporting, and concrete waste management. The SWPPP would be based on final engineering design and would include all project components.

3.2.2 Dust Control

During construction, the use of water trucks and other Best Available Control Measures would be used to minimize the quantity of fugitive dust created by construction, per the South Coast Air Quality Management District Rule 403-Fugitive Dust.

3.2.3 Staging Areas

Construction of the Proposed Project would require the establishment of temporary staging areas. Staging areas would be used as a reporting location for workers, vehicle and equipment parking and material storage. The area may also have construction trailers for supervisory and clerical personnel. Normal maintenance and refueling of construction equipment would also be conducted at these areas. All refueling and storage of fuels would be in accordance of the SWPPP.

SCE anticipates using one or more of the possible locations listed in Table 3.3 Potential Staging Area Locations and shown in Figure 3.6, Potential Staging Areas as the staging area(s) for the Proposed Project. Typically, each area would be 0.5 to 5 acres in size, depending on land availability and intended use. Preparation of the staging area would include temporary perimeter fencing and, depending on existing ground conditions at the area site, include the application of gravel or crushed rock. Any land that may be disturbed at the staging area would be restored to the extent practicable to preconstruction conditions following the completion of construction for the Proposed Project.

Materials commonly stored at the substation construction staging area would include, but not be limited to, portable sanitation facilities, electrical equipment such as circuit breakers, disconnect switches, lightning arresters, transformers, capacitor banks, reactor

banks, and vacuum switches, steel beams, rebar, foundation cages, conduit and grounding, insulators, conductor and cable reels, pull boxes, and line hardware.

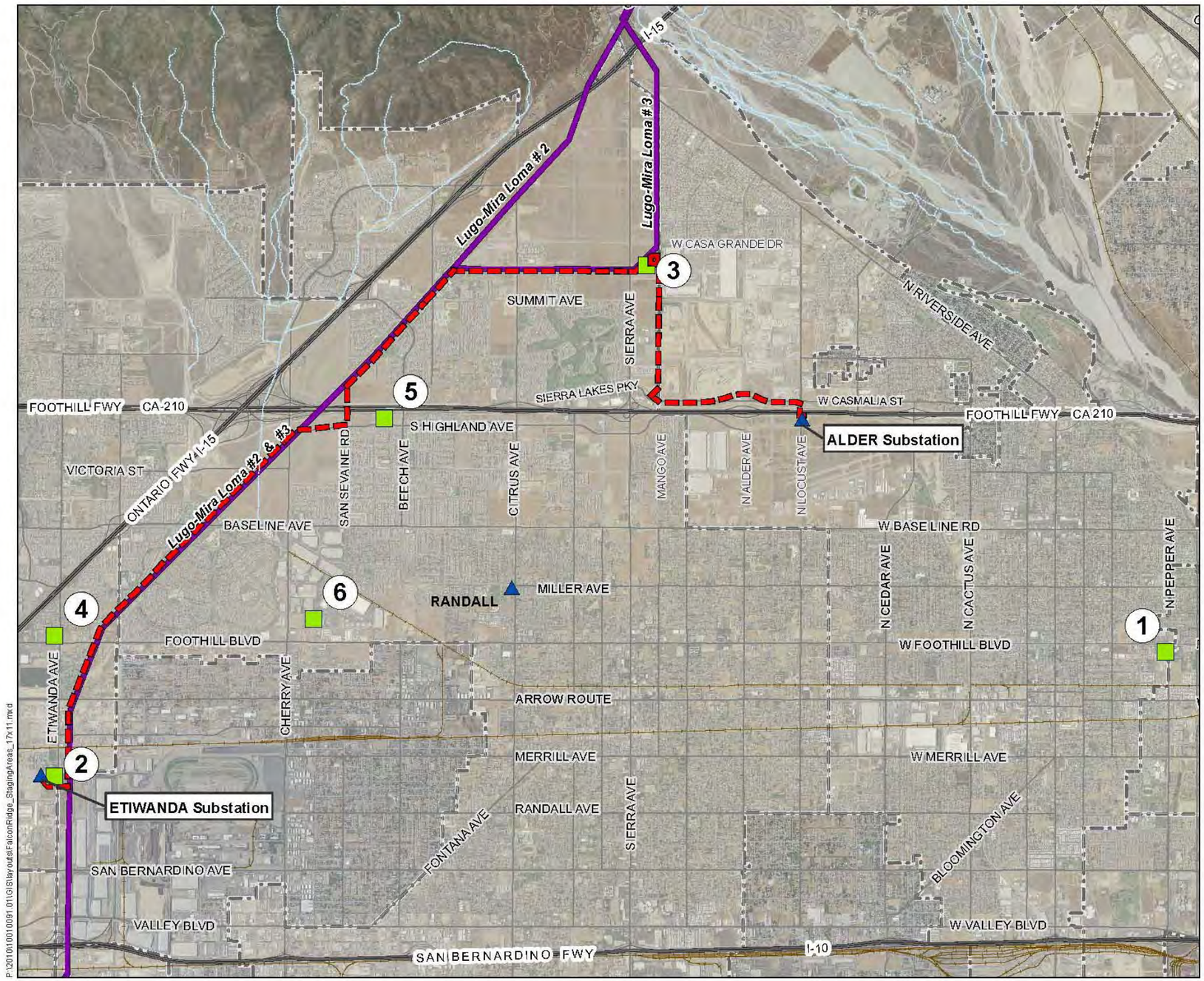
Table 3.3 Potential Staging Area Locations

Name	Location	Condition	Approx. Area	Project Component
No. 1	Eastern T/S, Rialto	Previously Disturbed	0.5 acre	Subtransmission
No. 2	Etiwanda Substation , Rancho Cucamonga	Previously Disturbed	3 acres	Subtransmission / Telecommunications
No. 3	Proposed Falcon Ridge Substation, Fontana	Undisturbed	2 acres	Substation
No. 4	w/s Etiwanda n/o Foothill, Rancho Cucamonga	Previously Disturbed	4 acres	Subtransmission
No. 5	n/s S. Highland e/o San Savaine, Fontana	Previously Disturbed	5 acres	Subtransmission
No. 6	Foothill Service Center, Fontana	Previously Disturbed	0.5 acre	Telecommunications

Materials commonly stored at the subtransmission construction staging area would include, but not be limited to, construction trailers, construction equipment, portable sanitation facilities, steel/wood poles, conductor/cable reels, overhead ground wire (OHGW) reels, hardware, insulators, cross arms signage, consumables (such as fuel and filler compound), waste materials for salvaging, recycling, or disposal, and BMP materials (straw wattles, gravel, and silt fences). Fuel stored at the site is generally used for small engine generators for power tool usage and is usually less than 25 gallons.

A majority of materials associated with the construction efforts would be delivered by truck to designated staging areas, while some materials may be delivered directly to the structure locations.

Laydown areas serve as temporary working areas for crews and where project related equipment and/or materials are placed at or near each structure location, within SCE ROW, or franchise. Table 3.4 Approximate Laydown Area Dimensions, identifies the approximate land disturbance for these laydown areas dimensions for the Proposed Project.



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Falcon Ridge Substation Project

Figure 3.6
Potential Staging Areas

Staging Area Locations
[not to scale]

1. No.1 -- Eastern T/S
2. No.2 -- Etiwanda Substation
3. No.3 -- Proposed Falcon Ridge Substation
4. No.4
5. No.5
6. No.6 -- Foothill Service Center

Project Components

Substation Site — Preferred
Source Line Route

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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Table 3.4 Approximate Laydown Area Dimensions

Laydown Area Feature	Preferred Size (L x W)
Guard Structures	50' x 75'
TSPs	200' x 100'
LWS Poles	150' x 75'
Wood Guy Poles	150' x 75'
Underground Vaults	175' x 100'
Stringing Setup Area Puller	300' x 100'
Stringing Setup Area Tensioner	400' x 100'

3.2.4 Traffic Control

Construction activities conducted within public street ROW may require the use of a traffic control service and all potential lane closures would be conducted consistent with local ordinances. Commonly used traffic control measures are consistent with these published in the California Joint Utility Traffic Control Manual, 2010 (CJUTCM).

3.2.5 Construction Work Hours

Construction efforts for the Proposed Project would occur in accordance with accepted construction industry standards. Construction activities would generally adhere to the noise ordinance of the local jurisdiction.[4] In the event construction activities are necessary on days or hours outside of what is specified by ordinance,[5] SCE would obtain variances as necessary from appropriate jurisdictions where the work would take place.

3.2.6 Substation Construction

The following section describes the construction activities associated with installing the components of the Falcon Ridge Substation for the Proposed Project.

Site Preparation and Grading

The substation site would be prepared by clearing existing vegetation within the boundaries of the Proposed Project site. Existing vegetation would be graded down 2 to 3 inches to remove all roots of the vegetation by a skip loader (small tractor) or a motor grader (earth moving tractor). Once vegetation clearance is completed, the site would be

[4] Construction hours based on City of Fontana Municipal Code, Chapter 18 Nuisances, Article II Noise. Retrieved from: http://library.municode.com/index.aspx?clientId=12233&stateId=5&stateName=California.

[5] For example, if existing lines must be taken out of service for the work to be performed safely and the line outage must be taken at night for system reliability reasons.

graded in accordance with approved grading plans and a temporary chain link fence would be installed around the substation perimeter.

Below Grade Construction

After the substation site is graded, below-grade facilities would be installed. Below-grade facilities include a ground grid, cable trenches, equipment foundations, conduits, duct banks, utilities, potential water quality management system, and footings for the substation perimeter wall. The design of the ground grid would be based on soil resistivity measurements collected during the geotechnical investigation.

Above-Grade Construction

Above-grade installation of substation facilities such as buses, capacitors, switchracks, disconnect switches, circuit breakers, transformers, steel support structures, perimeter wall, restroom facilities, and the MEER would commence after the below-grade structures are in place.

Temporary Power During Construction

Prior to construction SCE would select a nearby 12 kV distribution circuit to serve as the temporary three phase power source during construction activities at the substation site. Wood poles installed for temporary power would be approximately 25 feet high and placed approximately 50 feet apart. It is estimated that 10 to 15 wood poles would extend from a nearby 12 kV distribution circuit to the substation construction site[6]. Wood poles would be installed using a work truck with auger and placed at a depth of approximately 5 feet. Conductor would be strung from the nearby 12 kV distribution circuit and attached to the wood poles. Temporary power would be in place for the duration of construction at the substation site.

3.2.7 Overhead Subtransmission Source Line Installation

The following sections describe the construction activities associated with installing the overhead 66 kV Subtransmission Source Lines for the Proposed Project.

Survey

Construction activities would begin with the survey of the 66 kV subtransmission source line segments. The survey crew would stake the pole locations, including reference points and centerline hubs. The survey would also include the limits of any grading that is required for pole excavations.

Access Roads

The subtransmission source line portion of the project involves construction within existing and new ROW. Existing public roads, as well as existing transmission line roads,

[6] Prior to construction, SCE would determine a suitable connection point for the temporary power. SCE has existing distribution facilities in the area, with mainline running along both Sierra and Casa Grande, from which to connect the temporary power.

would be used as much as possible during construction of this project. Transmission line roads are classified into two groups: access roads and stub roads. Access roads are through roads that run between structure sites along a ROW and serve as the main transportation route along transmission line ROW. Stub roads are generally much shorter and branch off of access roads and terminate at one or more structure sites.

Rehabilitation work may be necessary in some locations along the existing transmission line roads to accommodate construction activities. As required, these roads would be cleared of vegetation, blade-graded to remove potholes, ruts, and other surface irregularities, or re-compacted to provide a smooth and dense riding surface capable of supporting heavy construction equipment. The graded road would have a minimum drivable width of 14 feet with two feet of shoulder on each side (depending upon field conditions).

Portions of the new subtransmission source line segments would require new access roads. Up to 7 miles of new access road would need to be constructed resulting in a disturbance of approximately 11 acres (see Figure 3.7 Proposed Pull & Tension Sites and Access Roads, for proposed access road locations). Similar to rehabilitation of existing roads, construction activities for new access roads include the following:

- Road alignments would be cleared and grubbed of vegetation, blade-graded to remove potholes, ruts, and other surface irregularities, fill material would be deposited where necessary, and roads would be re-compacted to provide a smooth and dense riding surface capable of supporting heavy construction equipment.

- Roads would be a minimum of 14 feet in width with two feet of shoulder on each side, but roads may be wider depending on final engineering.

- Road gradients would be leveled so that any sustained grade does not exceed 12 percent. All curves would have a curvature radius of not less than 50 feet measured at the center line of the usable road surface. Roads typically have turnaround areas near the structure locations.

For the Proposed Project new access roads and stub roads would need to be constructed at the following locations:

- New stub roads, approximately 475 feet in length, would be constructed east of Etiwanda Avenue near the Etiwanda Substation to access the proposed 66 kV subtransmission structures. These roads would extend from existing SCE access roads.

- A new access road approximately 1,100 feet in length would be constructed between 6th Street and Napa Street extending east from Etiwanda Avenue and follow the 66 kV subtransmission line to Napa Street within SCE's existing transmission ROW.

- A new access road approximately 700 feet in length would be constructed extending from Napa Street east of Etiwanda Avenue.

- A new access road approximately 425 feet in length would be constructed south of Whittram Avenue extending east from Etiwanda Avenue.

- Approximately 1,400 feet of new stub roads in length would be constructed north of Arrow Route. Access would be provided via an existing concrete driveway located east of Etiwanda Avenue along Arrow Route. The stub roads would extend from existing access roads.

- A new access road approximately 2,025 feet in length would be constructed along the 66 kV subtransmission structures from Foothill Avenue to East Avenue.

- A new access road approximately 500 feet in length would be constructed within SCE's existing transmission ROW east of the San Bernardino County Flood Control Channel to provide access for the 66 kV subtransmission structures. This road would extend from an existing SCE access road accessed via Heritage Parkway.

- A new access road approximately 850 feet in length would be constructed within SCE's existing transmission ROW northeast from Del Norte Street to provide access for the 66 kV subtransmission structures. This road would extend from an existing access point along Del Norte Street east of Wake Court.

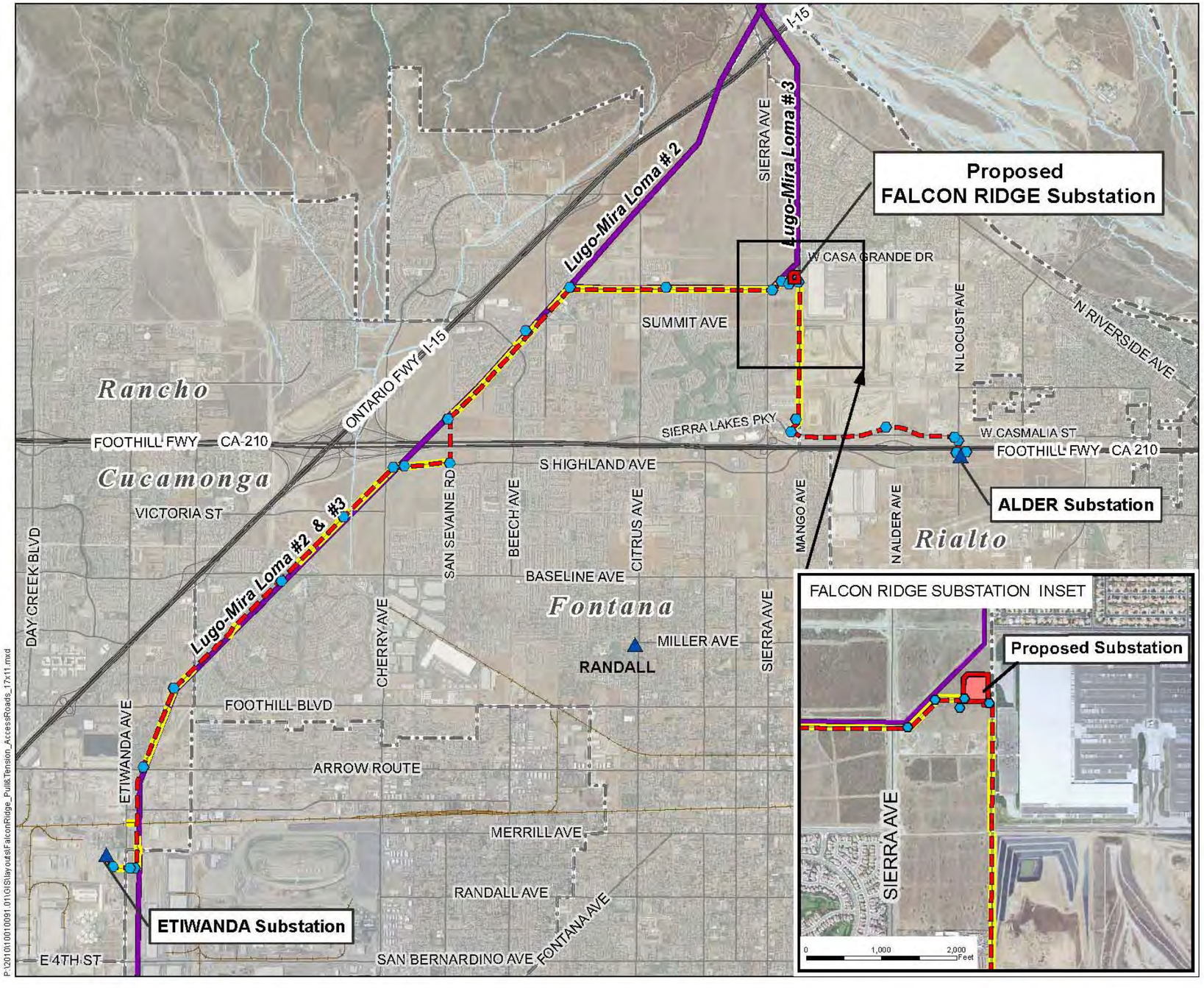
- A new access road approximately 2,000 feet in length would be constructed from Victoria Street to the southwest along the 66 kV subtransmission structures.

- A new access road approximately 1,800 feet in length would be constructed from Victoria Street to the Northeast along the 66 kV subtransmission structures and within SCE's existing transmission ROW to Cherry Avenue. Another access road would proceed within SCE's existing transmission ROW from Cherry Avenue to South Highland Avenue approximately 250 feet in length.

- A new access road approximately 2,500 feet in length would be constructed north of South Highland Avenue from an existing SCE access road east to San Sevaine Road.

- A new access road approximately 4,000 feet in length would be constructed within SCE's existing transmission ROW from an existing SCE access road at San Sevaine Road to provide access for the 66 kV subtransmission structures.

- A new access road approximately 1,500 feet in length would be constructed within SCE's existing transmission ROW from an existing access road at Beech Avenue to the northeast The road would run along the 66 kV subtransmission structures.



Falcon Ridge Substation Project

Figure 3.7

Proposed Pull & Tension Sites and Access Roads

Pull and Tension Sites

[not to scale]

Access Roads

Project Components

Substation Site — **Proposed**

Source Line Route

Existing Features

Substation

500 kV Transmission Line

Cities/Communities

Sources: NAIP 2009 /SAN BERNARDINO CO GIS / SCE 2010

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- A new access road approximately 1,200 feet in length would be constructed within SCE's existing transmission ROW from an existing access road from Lytle Creek Road to provide access to the 66 kV subtransmission structures running east of the 500 kV transmission line. The area within Sports Park Lawn would be a typical unpaved SCE access road.

- A new access road approximately 250 feet in length would be constructed from the existing access road along SCE's existing transmission ROW from Knox Avenue heading west to provide access to the 66 kV subtransmission line structures. These stub roads would be perpendicular to the existing access road.

- New stub roads, approximately 1,000 feet in length would be constructed from the existing access road along SCE's existing transmission ROW from Parkside Way heading west to provide access to the 66 kV subtransmission line structures. These stub roads would be perpendicular to the existing access road.

- A new access road approximately 2,500 feet in length would be constructed within SCE's existing transmission ROW from an existing access road from Parkside Way to Citrus Avenue to provide access to the 66 kV subtransmission structures running south of the existing 500kV transmission line.

- A new access road approximately 5,000 feet in length would be constructed from Citrus Avenue to Sierra Avenue to provide access to the 66 kV subtransmission structures running south of the existing 500kV transmission line.

- A new 24-foot wide paved access road accessed via a concrete driveway along Sierra Avenue would be utilized for both substation and subtransmission line access. It is described in Section 3.1.1 Falcon Ridge Substation Description, subsection Substation Access. New 14-foot stub roads extending from this paved access road would be constructed in order to provide access to any subtransmission structures between Sierra Avenue and Mango Avenue ROW. These stub roads would be approximately 1,100 feet in length.

- A new access road would extend to Summit Avenue behind the westerly future curb along Mango Avenue to provide access to the subtransmission structures. From the Summit Avenue intersection another access road would extend south along the Mango Avenue ROW approximately 2,700 feet to Bohnert Avenue. The access road would continue south from Bohnert Avenue along the Mango Avenue ROW for approximately 1,500 feet. The access road would then curve southwest for approximately 400 feet and intersect West Casmalia Street perpendicularly where a concrete driveway would be installed for access.

- A concrete driveway would be provided for all access roads extending from major roads.

- Any excess excavated material from grading the access roads would be properly disposed of at an approved facility in accordance with all applicable laws.

Wood and Lightweight Steel Pole Installation

The Proposed Project would require the installation of wood and LWS poles. The poles would be installed (direct buried) in native soil. The pole holes would be drilled to individual pole specifications as required. Due to site-specific conditions, a backhoe may be utilized to dig the pole holes as well. Once the poles are set in place, bore spoils (material from holes drilled) would be used to backfill the hole. If the bore spoils are not suitable for backfill, imported fill material, such as clean fill or crushed rock, would be used. Excess bore spoils would be distributed at each pole site, used as backfill for the holes left after removal of nearby poles (if any), or disposed of off-site in accordance with all applicable laws.

Wood poles are single units while LWS poles consist of separate base and top sections. Poles would be hauled from a material yard to the structure site and, where feasible, a line truck would then unload the individual poles on the ground in the temporary laydown area at or near pole locations. While on the ground, the poles could be configured with the necessary cross arms, insulators, and wire-stringing hardware before being set in place.

A line truck with an attached boom would be used to set the poles into previously prepared holes. For LWS poles, after the base section is secured, the top section would be placed onto the base section and the two sections would be bolted together. The two sections may also be spot welded together for additional stability. The pole sections could also be assembled into a complete structure and set by jacking both sections together while on the ground, but this would depend largely on the terrain and available equipment.

Tubular Steel Pole Installation

The Proposed Project would require the installation of TSPs. TSP installation is done in two phases: foundation installation and structure assembly/erection. Each TSP location would require a temporary laydown area that could be cleared and/or graded to provide a reasonably level surface free of vegetation for footing construction, assembly, and erection of the TSPs. If existing terrain around the structure is not suitable to support crane activities, a temporary crane pad would be constructed within the laydown area.

Each TSP would require a single drilled, poured-in-place, concrete footing that would form the structure foundation. The foundation process starts with the drilling of the hole for each structure. The hole would be drilled using truck or track-mounted excavators with various diameter augers to match the diameter requirements of the structure. Actual footing diameters and depths for each of the structure foundations would depend on the soil conditions and topography at each site and would be determined during final engineering. Due to site-specific conditions, a backhoe may be utilized to dig the pole holes as well. The excavated material would be distributed at each structure site, used to backfill excavations from the removal of nearby structures (if any), or used in the rehabilitation of existing access roads. Alternatively, the excavated soil may be disposed of at an approved disposal facility in accordance with all applicable laws.

Following excavation of the foundation footing, a steel reinforced rebar cage would be set, anchor bolts would be positioned, survey verified, and concrete would then be poured. Steel reinforced rebar cages would be assembled off site and delivered to each structure location by flatbed truck. Typically TSP structures would require approximately 25 to 40 cubic yards of concrete delivered to each structure location. TSP footings in residential areas could project approximately 0 to 2 feet above ground level. In uninhabited areas, TSP footings could project approximately 1 to 4 feet above ground level.

In the event that the foundations would be placed in soft or loose soil and that extend below the groundwater level, the foundations may be stabilized with drilling mud slurry. Mud slurry would be placed in the hole after drilling to prevent the sidewalls from sloughing. The concrete for the foundation is then pumped to the bottom of the hole, displacing the mud slurry. The mud slurry brought to the surface is typically collected in a pit adjacent to the foundation, and then pumped out of the pit to be reused or discarded at an approved disposal facility.

During construction, existing concrete supply facilities would be used where feasible. Concrete samples would be drawn at time of pour and tested to ensure engineered strengths were achieved. A normally specified SCE concrete mix typically takes approximately 20 working days to cure to an engineered strength. This strength is verified by controlled testing of sampled concrete. Once this strength has been achieved, crews would be permitted to commence erection of the structure.

TSPs consist of separate base and top sections. TSP sections would be hauled from a staging area to the structure site and, where feasible, a crane would unload the individual pole sections on the ground within the designated laydown area. While on the ground, the top section would be configured with the necessary cross arms, insulators, and wire-stringing hardware before being set in place.

A crane would be set up approximately 60 feet from the centerline of each structure. To set each base section on top of previously prepared foundations. When the base section is secured, the top section of the TSP would be set into place onto the base section and the two sections would be bolted together. The two sections may also be spot welded together for additional stability.

After construction is completed, the TSP site would be graded such that water would drain naturally from the site. In addition, drainage would be designed to prevent ponding and erosive water flows that could damage the structure footing. The graded area would be compacted and capable of supporting heavy vehicular traffic.

Conductor/Wire Stringing

Wire-stringing activities would be conducted in accordance with SCE practices that are similar to process methods detailed in Institute of Electrical and Electronics Engineers Standard 524-2003, Guide to the Installation of Overhead Transmission Line Conductors.

To ensure the safety of workers and the public, safety devices such as traveling grounds, guard structures, and radio-equipped public safety vehicles and linemen would be in place prior to the initiation of wire-stringing activities.

Wire-stringing includes all activities associated with the installation of the primary-voltage conductors onto subtransmission structures. These activities typically include the installation of conductor, shield wire (OHGW), vibration dampeners, weights, suspension and dead-end hardware assemblies for the entire length of the proposed subtransmission route. Insulators and stringing sheaves (rollers or travelers) are also attached as part of the wire-stringing activities.

The puller, tensioner, and splicing set-up locations associated with the Proposed Project would be temporary and the land would be restored to its pre-construction condition following completion of pulling and splicing activities. The set-up locations require level areas to allow for maneuvering of the equipment and, when possible, these locations would be situated on existing roads and level areas to minimize the need for grading and cleanup. The number and location of these sites would be determined during final engineering. The approximate area needed for stringing set-ups associated with wire installation is variable and depends upon terrain. The preferred set-up areas are 400 feet by 100 feet (0.92 acres) for tensioning equipment, 300 feet by 100 feet (0.69 acres) for pulling equipment, and 150 feet by 100 feet (0.34 acres) for splicing equipment; however, crews can work within smaller areas when space is limited.

Wire pulls are the length of any given continuous wire installation process between two selected points along the line. Wire pulls are selected based on availability of dead-end structures, geometry of the line as affected by points of inflection, terrain, and suitability of stringing and splicing equipment set-up locations. On relatively straight alignments, typical wire pulls occur approximately every 6,000 to 8,000 feet in flat terrain. When the alignment contains multiple deflections or is situated in rugged terrain, the length of the wire pull is diminished. Generally, pulling locations and equipment set-ups would be in direct line with the direction of the overhead conductors and established approximately a distance of three times the height away from the adjacent structure.

Each stringing operation consists of a puller set-up positioned at one end and a tensioner set-up with wire reel stand truck positioned at the other end of the wire pull (see Figure 3.7, Proposed Pull and Tension Sites and Access Roads for proposed pull and tension set up locations). Pulling and wire tensioning locations may also be utilized for splicing and field snubbing of the conductors. Splicing set-up locations are used to remove temporary pulling splices and install permanent splices once the conductor is strung through the rollers located on each structure. Temporary splices are necessary since permanent splices that join the conductor together cannot travel through the rollers. Field snubs (i.e., anchoring and dead-end hardware) would be temporarily installed to sag conductor wire to the correct tension at locations where stringing equipment cannot be positioned in back of a dead-end structure.

The following five steps describe the wire installation activities proposed by SCE:

- Step 1: Develop a wire-stringing plan to determine the sequence of wire pulls and the set-up locations for the wire pull/tensioning/splicing equipment.

- Step 2: Sock Line, Threading: A bucket truck would be used to install a lightweight sock line from structure to structure. The sock line would be threaded through the wire rollers in order to engage a camlock device that would secure the pulling sock in the roller. This threading process would continue between all structures through the rollers of a particular set of spans selected for the wire pull.

- Step 3: Pulling: The sock line would be used to pull in the conductor pulling cable. The conductor pulling cable would be attached to the conductor using a special swivel joint to prevent damage to the wire and to allow the wire to rotate freely to prevent complications from twisting as the conductor unwinds off the reel.

- Step 4: Splicing, Sagging, and Dead-ending: After the conductor is pulled in, if necessary, all mid-span splicing would be performed. Once the splicing has been completed, the conductor would be sagged to proper tension and dead-ended to structures.

- Step 5: Clipping-in: After the conductor is dead-ended, the conductors would be secured to all tangent structures; a process called clipping in.

Guard Structures

Guard structures are temporary facilities that would typically be installed at transportation, flood control, and utility crossings for wire stringing activities. These structures are designed to stop the movement of a conductor should it momentarily drop below a conventional stringing height. Typical guard structures are standard wood poles, 60 to 80 feet tall. Depending on the overall width of the conductors being installed, two to four guard poles would be required on either side of a crossing. Temporary netting could also be installed to protect some types of under-built infrastructure. The guard structures are removed after the conductor is secured into place. In some cases, the wood poles may be substituted with the use of specifically equipped boom trucks staged to prevent the conductor from dropping.

SCE estimates 56 guard structures would need to be constructed along the proposed route.[7]

For highway, railroad, and open channel aqueduct crossings, SCE would work closely with the applicable jurisdiction to secure the necessary permits to string conductor over the applicable infrastructure.

[7] The number of guard structures is a preliminary estimate, as the type of guard structures that would be required for crossings and the number of crossings necessary would be field verified during construction.

Removal of Existing Poles

Prior to the removal of existing poles (see section 3.1.3 Subtransmission Source Line Route Description), the existing subtransmission lines, distribution lines (where applicable), and telecommunication lines (where applicable) and the associated hardware (e.g., insulators, vibration dampeners, suspension clamps, ground wire clamps, shackles, links, nuts, bolts, washers, cotters pins, insulator weights, and bond wires) would be transferred to the new poles. All remaining subtransmission, distribution and telecommunication lines that are not reused by SCE would be removed and delivered to a facility for recycling. Depending on the type, condition and original chemical treatment, the wood poles removed could be reused by SCE for other purposes, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a Regional Water Quality Control Board (RWQCB) certified municipal landfill.

Each structure would require a line truck or rough terrain crane to support the structure during dismantle and removal. If the existing terrain is not suitable to support crane activities, a temporary 50 feet by 50 feet (0.06 acres) crane pad would be constructed within the laydown area. The existing poles would be completely removed and structure footings, if any, would be removed to a depth of approximately two feet below ground level. Holes would be backfilled, compacted, and the area would be smoothed to match surrounding grade.

3.2.8 Underground Subtransmission Source Line Installation

The following sections describe the construction activities associated with installing the underground 66 kV subtransmission lines for the Proposed Project.

Survey

Construction activities would begin with the survey of existing underground utilities along the proposed underground subtransmission source line route. SCE would notify all applicable utilities via underground service alert to locate and mark existing utilities and conducting exploratory excavations (potholing) as necessary to verify the location of existing utilities. SCE would secure encroachment permits for trenching in public streets, as required.

Trenching

The Proposed Project includes a total of approximately 1,800 feet of new underground 66 kV subtransmission lines and associated transition and support structures. A 20-inch wide by 60-inch deep trench would be required to place the 66 kV subtransmission line underground. This depth is required to meet the minimum 36 inches of cover above the duct bank. Trenching may be preformed by using the following general steps, including but not limited to: mark the location and applicable underground utilities, lay out trench line, saw cut asphalt or concrete pavement as necessary, dig to appropriate depth with a backhoe or similar equipment, and install duct bank. Once the duct bank has been installed, the trench would be backfilled with a two-sack sand slurry mix. Excavated materials (approximately 600 cubic yards) would be disposed of at an approved disposal facility in accordance with all applicable laws. Should groundwater be

encountered, it would be pumped into a tank and disposed of at an approved disposal facility.

The trench for underground construction would be widened and shored where appropriate to meet California Occupation and Safety Health Administration requirements. Trenching would be staged so that open trench lengths would not exceed that which is required to install the duct banks. Where needed, open trench sections would have steel plates placed over them in order to maintain vehicular and pedestrian traffic. Provisions for emergency vehicle access would be arranged with local jurisdictions in advance of construction activities.

Duct Bank Installation

As trenching for the underground 66 kV subtransmission line is completed, SCE would begin to install the underground duct bank. Collectively, the duct bank is comprised of cable conduit, spacers, ground wire, and concrete encasement. The duct bank typically consists of six 5-inch diameter polyvinyl chloride (PVC) conduits fully encased with a minimum of 3 inches of concrete all around. Typical 66 kV subtransmission duct bank installations would accommodate six cables. The Proposed Project would utilize three cable conduits and leave three spare cable conduits for any potential future circuit pursuant to SCE's current standards for 66 kV underground construction. See Figure 3.8 Typical Subtransmission Duct Bank.

The majority of the 66 kV duct banks would be installed in a vertically stacked configuration and each duct bank would be approximately 21 inches in height by 20 inches in width. In areas where underground utilities are highly congested or areas where it is necessary to fan out the conduits to reach termination structures, a flat configuration duct bank may be required. However, for the Proposed Project it is not anticipated that a flat underground duct bank configuration would be required.

In instances where a subtransmission duct bank would cross or run parallel to other substructures that operate at normal soil temperature (gas lines, telephone lines, water mains, storm drains, sewer lines), a minimal radial clearance of 6 inches for crossing and 12 inches for paralleling these substructures would be required, respectively. Where duct banks cross or run parallel to substructures that operate at temperatures significantly exceeding normal soil temperature (other underground transmission circuits, primary distribution cables, steam lines, heated oil lines), additional radial clearance may be required. Clearances and depths would meet requirements set forth within Rule 41.4 of CPUC G.O. 128.

Vault Installation

Vaults are below-grade concrete enclosures where the duct banks terminate. The vaults are constructed of prefabricated steel-reinforced concrete and designed to withstand heavy truck traffic loading. The inside dimensions of the underground vaults would be approximately 10 feet wide by 20 feet long with an inside height of 9.5 feet. The vaults would be placed approximately 200 to 1,000 feet apart along the underground segments of the subtransmission source line.

Initially, the vaults would be used as pulling locations to pull cable through the conduits. After the cable is installed, the vaults would be utilized to splice the cables together. During operation, the vaults would provide access to the underground cables for maintenance, inspections, and repairs.

Installation of each vault would typically take place over a one-week period depending on soil conditions. First, the vault pit would be excavated and shored, a minimum of 6 inches of mechanically compacted aggregate base would be placed to cover the entire bottom of the pit, followed by delivery and installation of the vault. Once the vault is set, grade rings and the vault casting would be added and set to match the existing grade. The excavated area would be backfilled with a sand slurry mix to a point just below the top of the vault roof. Excavated materials, if suitable, would be used to backfill the remainder of the excavation and any excess spoils would be disposed of at an approved disposal facility in accordance with all applicable laws. Finally, the excavated area would be restored as required. See Figure 3.9 Typical Subtransmission Vault.

Cable Pulling, Splicing, Termination

Following vault and duct bank installation, SCE would pull the electrical cables through the duct banks, splice the cable segments at each vault, and terminate cables at the transition structures where the subtransmission line would transition from underground to overhead. To pull the cables through the duct banks, a cable reel would be placed at one end of the conduit segment, and a pulling rig would be placed at the opposite end. The cable from the cable reel would be attached to a rope in the duct bank, and the rope linked to the pulling rig, which would pull the rope and the attached cable through the duct banks. A lubricant would be applied as the cable enters the ducts to decrease friction and facilitate travel through the PVC conduits. The electrical cables for the 66 kV subtransmission line circuit would be pulled through the individual conduits in the duct bank at a rate of two to three segments between vaults per day.

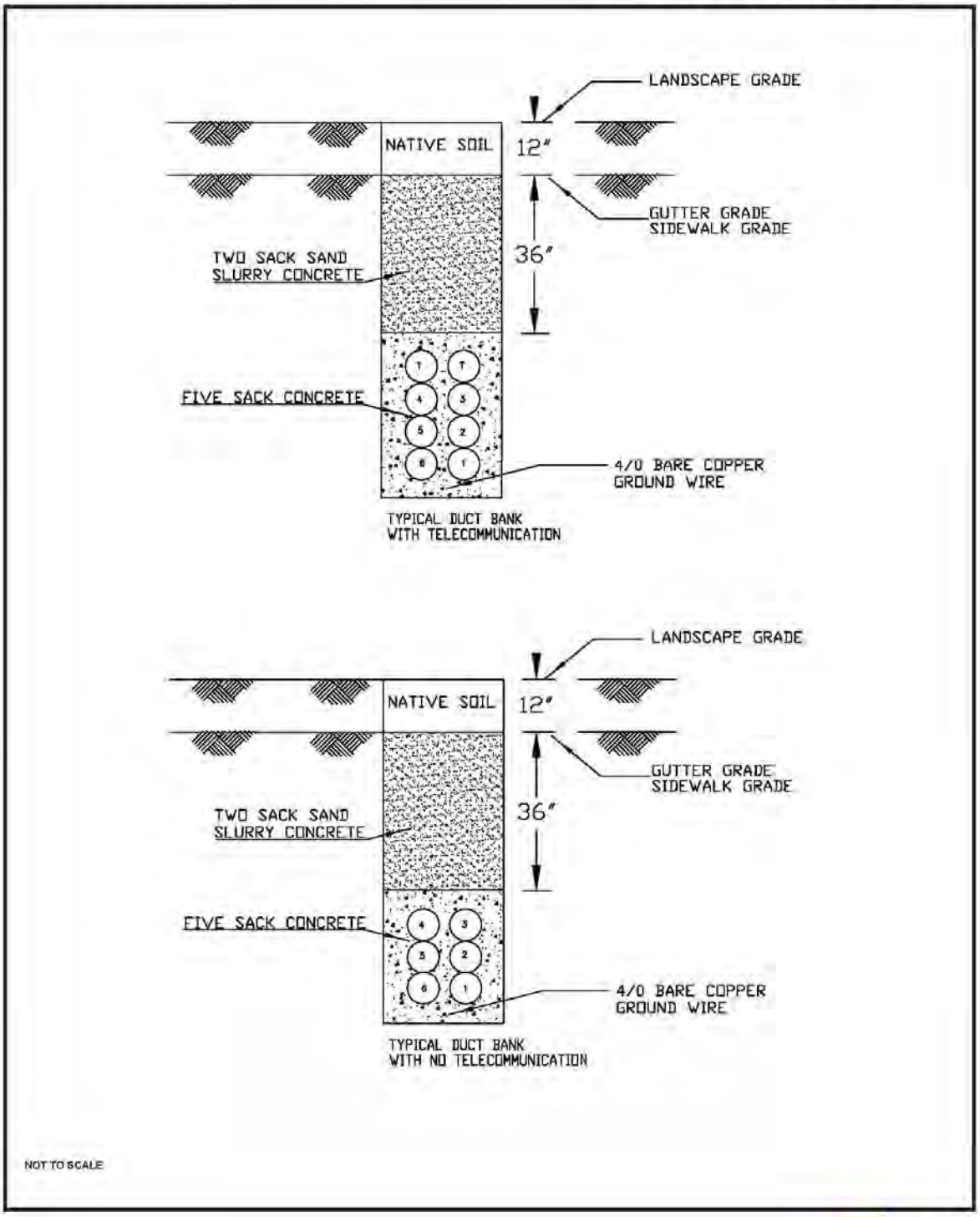
After cable pulling is completed, the electrical cables would be spliced together. A splice crew would conduct splicing operations at each vault location and continue until all splicing is completed.

Transition Structure Construction

At each end of an underground segment, the cables would rise out of the ground at transition structures, which accommodate the transition from underground to overhead subtransmission lines. Transition structures constructed as part of the Proposed Project would consist of engineered TSP structures. The transition structure would support cable terminations, lightning arresters, and dead-end hardware for overhead conductors. Construction methods for these structures would be substantially similar to those described in Section 3.2.7 Overhead Subtransmission Source Line Installation, subsection Tubular Steel Pole Installation.

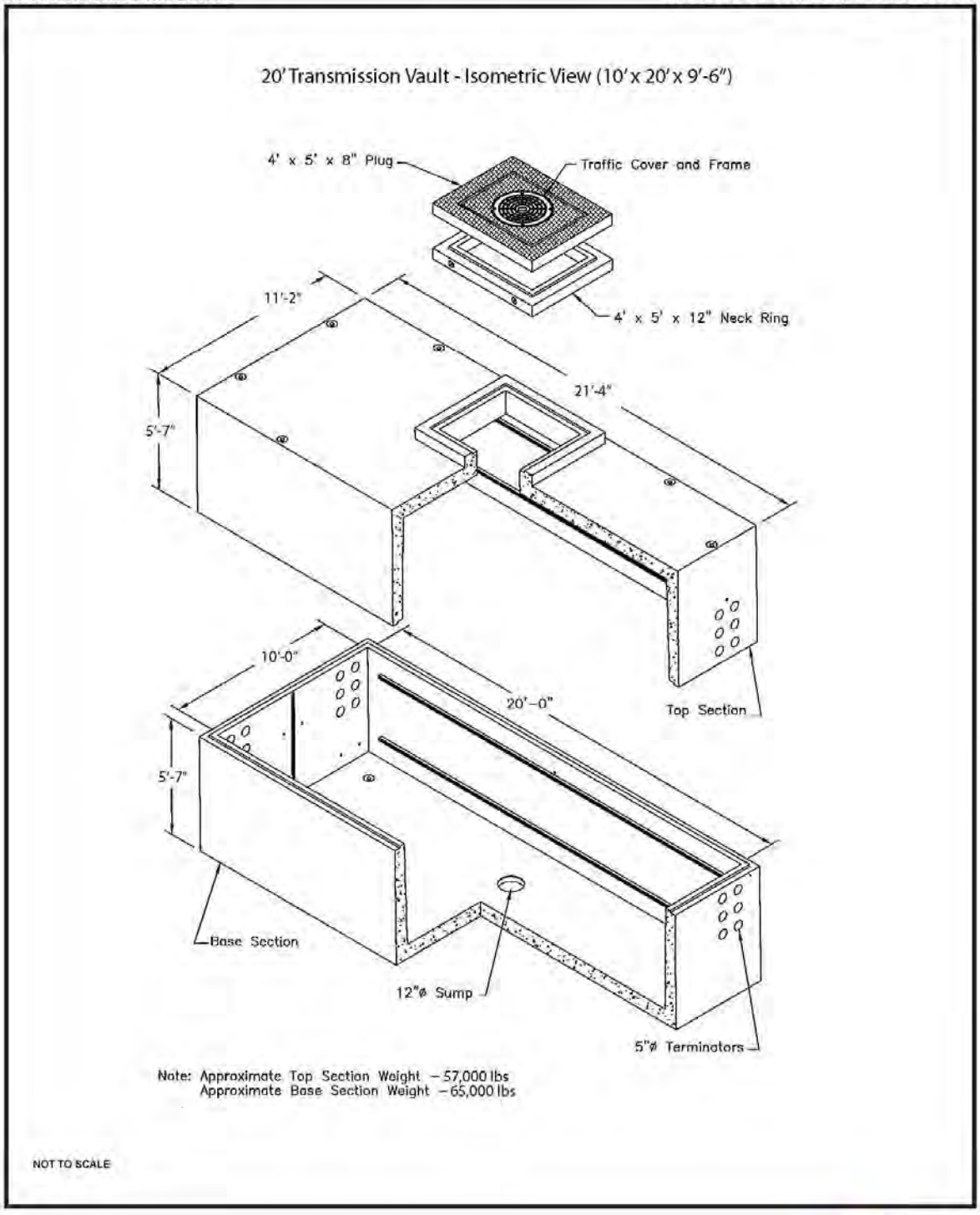
FALCON RIDGE SUBSTATION PROJECT **FIGURE 3.8**

Southern California Edison **TYPICAL SUBTRANSMISSION DUCT BANK**



FALCON RIDGE SUBSTATION PROJECT **FIGURE 3.9**

Southern California Edison **TYPICAL SUBTRANSMISSION VAULT**



3.2.9 Energizing Subtransmission Source Lines

The existing Etiwanda-Alder-Randall 66 kV subtransmission line would be de-energized in order to interset three TSPs and reconfigure three existing poles to allow for a double circuit configuration. The existing Etiwanda-Declez #1 66 kV subtransmission line and the Etiwanda-Randall 66 kV subtransmission line would be de-energized to interset one TSP in order to accommodate a perpendicular cross over of one of the Proposed 66 kV Subtransmission Source Lines. To reduce the need for electric service outages, de-energizing and reconnecting the existing subtransmission lines to the new poles may occur at night when electrical demand is low. Once the work referenced above to the existing subtransmission lines is complete, the existing subtransmission lines would be returned to service (re-energized).

3.2.10 Telecommunications Construction

Overhead telecommunications facilities would be installed by attaching cable to structures in a manner similar to that described above for wire stringing. 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. Typically, fiber optic cable pulls vary between 6,000 feet to 10,000 feet in length. Cable would be pulled onto the pole and permanently secured. 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.

Underground telecommunication facilities would be installed in new duct banks. The new duct banks would be installed by backhoe-excavated trench approximately 12 inches wide and 36 inches deep. Five-inch polyvinyl-chloride (PVC) conduit would be placed in the open trench, encased with slurry, covered with back-fill material and then compacted. Each underground section (maximum 1,000 feet) would have a manhole installed at each terminus and the cable from one section would be spliced to the fiber strands from the next section.

Typical excavation would encompass construction of a trench approximately 12 inches wide and 36 inches deep. The ground disturbance area for the trenching would be approximately 15 feet wide by the specific length of the excavation. The ground disturbance area for the manhole installation is approximately 40 feet wide by 50 feet long. The disturbance is due to activities associated with the conduit and structure installation and concrete encasement. Construction activities would typically include the use of a backhoe, dump trucks, crew trucks, and concrete trucks. The trench would be backfilled with slurry and soil. Excess soil would be hauled to an approved disposal facility in accordance will all applicable laws.

3.2.11 Distribution Getaway and Relocation of Existing Distribution Facilities Construction

Construction of the three distribution getaways would include construction activities in both unpaved and paved areas as described below:

- Getaway 1 would exit west from the substation and include approximately 1,120 feet of construction within unpaved areas as well as approximately ten feet within the existing paved Sierra Avenue. It would include one vault located approximately 600 feet from the substation and it would terminate in a second vault located within Sierra Avenue.

- Getaway 2 would exit west from the substation and include approximately 1,235 feet of construction entirely within unpaved areas. It would include one vault located approximately 600 feet from the substation and it would terminate by being capped for future use.

- Getaway 3 would exit north from the substation and include approximately 740 feet of construction entirely within unpaved areas. It would have one vault located approximately 200 feet from the substation and terminate in a second vault located within the future Casa Grande Avenue.

Typical excavation in unpaved areas would encompass construction of a trench approximately 20 inches wide and 54 inches deep. The ground disturbance area for the trenching would be approximately 30 feet wide by the specific length of the excavation. The ground disturbance area for the vault installation is approximately 40 feet wide by 50 feet long. The disturbance is due to activities associated with the conduit and structure installation and concrete encasement. Construction activities would typically include the use of a backhoe, dump trucks, crew trucks, and concrete trucks. Soil excavated would be used to refill the trench and area surrounding the vaults with excess soil trucked to an approved disposal facility in accordance with all applicable laws.

Typically excavation in paved streets would encompass construction of a trench approximately 20 inches wide by 54 inches deep. The ground disturbance area for the trenching would be approximately 20 inches wide by the specific length of the excavation. The ground disturbance area for the vault installation is approximately 10 feet wide by 20 feet long. The disturbance is due to activities associated with the conduit and structure installation and concrete encasement. Construction activities would typically include the use of a backhoe, dump trucks, crew trucks, and concrete trucks. Soil excavated would be used to refill the trench and area surrounding the vaults with excess soil trucked to an approved disposal facility.

For the relocation of existing distribution facilities as described in Section 3.1.3 Subtransmission Source Line Route Description, subsection Relocation of Existing Distribution Facilities, the following would occur:

- For those portions of the subtransmission route where existing distribution facilities would be relocated to new subtransmission poles, access to the site would be via the existing paved streets. Removal of these poles is further explained in Section 3.2.7. Overhead Subtransmission Source Line Installation, subsection Removal of Existing Poles.

- For the approximately 800 feet of existing overhead distribution facilities that would be required to be placed underground, this is anticipated to occur in an unpaved area along Foothill Boulevard. Excavation would occur on the north side of Foothill Boulevard and the trench would be approximately 20 inches wide and 800 feet long. The ground disturbance area for the trenching would be approximately 15 feet wide by 800 feet long. There would be approximately 22,000 square feet of ground disturbance for the trench and required equipment laydown area. Construction activities would typically include the use of a backhoe, dump trucks, crew trucks, and concrete trucks. Soil excavated would be used to refill the trench and area surrounding the vaults with excess soil trucked to an approved disposal facility. Once the underground infrastructure is in place, the crews would install cable in the conduits. After the new cable is installed and energized the existing poles would be removed as explained in Section 3.2.7. Overhead Subtransmission Source Line Installation, subsection Removal of Existing Poles.

- For the relocation of an existing distribution riser pole (i.e., pole where the transition from underground to overhead occurs) at the intersection of West Casmalia Street and Locust Avenue, there would be approximately 100 square feet of ground disturbance. Excavation of the street would occur to intercept an existing empty conduit and then extend it to a new proposed riser pole located nearby. Construction activities would typically include the use of a backhoe, dump trucks, crew trucks, and concrete trucks. Soil excavated would be used to refill the trench with excess soil trucked to an approved disposal facility. Once the underground infrastructure is in place, the crews would install cable in the conduit to the new riser pole. After the new cable is installed and energized the existing pole would be removed as explained in Section 3.2.7. Overhead Subtransmission Source Line Installation, subsection Removal of Existing Poles.

3.2.12 Post-Construction Cleanup

SCE would restore all areas that are temporarily disturbed by the Proposed Project activities once construction is complete. Restoration areas could be inclusive of, but not limited to, some access roads, material staging areas, pull tension, and splicing sites, and pull box locations. Any land that may be disturbed would be restored to the extent practicable to preconstruction conditions following the completion of construction for the Proposed Project. All construction materials and debris would be removed from the area

and recycled or properly disposed of at an approved facility in accordance with all applicable laws.

3.3 Land Acquisition

SCE owns the approximately 7.5-acre parcel of land where the Proposed Falcon Ridge Substation would be built. However, SCE would need to take the following Right of Way actions:

- Upgrade approximately 24 acres with a 30 foot wide strip of land located within the existing 250 foot wide ROW corridor which extends seven miles along the SCE's existing transmission ROW
- Utilize approximately 7.5 acres with a 30 foot wide strip of land located within the existing SCE fee owned 330 foot wide, 2 miles in length transmission ROW
- Acquire approximately 13 acres of new easement rights for a 30 foot wide ROW to accommodate the subtransmission source lines and road access for a distance of approximately 3.6 miles in length

SCE generally purchases easements from property owners for ROWs. SCE would offer to pay fair market value for these easement rights, based upon a value determined by a certified appraiser. Typically the property acquisition process is not initiated until after project approval.

3.4 Land Disturbance

Land disturbance for the Proposed Project would include surface modifications for the installation of access roads, 66 kV subtransmission lines, telecommunication lines, and the substation. It is estimated that the total permanent land disturbance for the Proposed Project would be 27.26 acres. The estimated amount of land disturbance for each project feature is summarized below in Table 3.5, Estimated Land Disturbance.

Table 3.5 Estimated Land Disturbance

Project Feature	Site Quantity	Disturbed Acreage Calculation (L x W)	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
Substation Construction					
Substation (including approx. 1 acre staging area)	1	800 x 800 x 1130	7.5	1	6.5

Table 3.5 Estimated Land Disturbance

Project Feature	Site Quantity	Disturbed Acreage Calculation (L x W)	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
66 kV Subtransmission Source Line Construction					
Guard Structures	56	50' x 75'	5	5	0
Remove Existing 66 kV LWS Pole & Replace w/ TSP [1]	1	200' x 100'	0.5	0.5	0
Remove Existing Wood Pole & Replace w/ LWS Pole [1]	3	150' x 75'	0.8	0.8	0
Install New 66 kV TSP [2]	49	200' x 100'	22.5	19.6	2.9
Install New 66 kV LWS Pole [2]	241	150' x 75'	62.2	59.8	2.4
Install New 66 kV Wood Guy Pole [2]	6	150' x 75'	1.5	1.5	0.06
Install New U.G. 66 kV Vault [3]	4	175' x 100'	2	2	0.1
Install New U.G. 66 kV Duct Bank [3]	1800	linear feet x 15' wide	1	1	0
66 kV Conductor / OHGW Stringing Setup Area - Puller [4]	19	300' x 100'	13	13	0
66 kV Conductor / OHGW Stringing Setup Area - Tensioner [4]	19	400' x 100'	17	17	0
New Access/Spur Roads	7	linear miles x 18’ wide	15.3	0	15.3
Material & Equipment Staging Area (TBD)	2	Approx. 5 acres	10	10	0
Telecommunications Construction					
Manhole installation	6	40’ x 50’	.28	0	<0.1
Conduit installation	5	4,825’ x 15’	1.66	1.66	0
Distribution Construction					
Getaway	3	1200’ x 35’	1	1	0
Vault	5	55’ x 40’	<0.1	0	<0.1

Table 3.5 Estimated Land Disturbance

Project Feature	Site Quantity	Disturbed Acreage Calculation (L x W)	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
Undergrounding	1	800’ x 15’	0.5	0.5	0
Pole Removal	25	5’ x 5’	<0.1	<0.1	0
Total			161.74	134.36	27.26

1 Includes the removal and/or transfer of existing conductor, teardown, and removal of existing structure.
2 Includes foundation installation, structure assembly and erection, conductor & OHGW installation. Area to be restored after construction: Portion of ROW within 25 feet of a TSP or 10 feet of a LWS or wood pole to remain cleared of vegetation and would be permanently disturbed (approximately 0.1 acres per TSP and <0.01 acres per LWS and wood pole).
3 Includes all underground civil construction activities associated with vault, duct bank, and cable installations. Area to be restored and/or repaved after construction.
4 Based on 6,000 foot conductor reel lengths, number of circuits, and route design.
The disturbed acreage calculations are estimates based upon SCE’s preferred area of use for the described project feature, the width of the existing ROW, and the width of the proposed ROW. The calculations are subject to revision based upon final engineering.

3.5 Hazards and Hazardous Materials

Construction of the Proposed Project would require the limited use of hazardous materials such as fuels, lubricants, and cleaning solvents. All hazardous materials would be stored, handled and used in accordance with applicable regulations. Material Safety Data Sheets would be made available at the construction site for all crew workers.

The SWPPP prepared for the Proposed Project would require locations for storage of hazardous materials during construction as well as best management practices, notifications, and cleanup requirements for incidental spills or other potential releases of hazardous materials.

3.6 Waste Management

Construction of the Proposed Project would result in the generation of various waste materials that can be recycled and salvaged. Waste items and materials would be collected by construction crews and separated into roll-off boxes at the staging area. All waste materials that are not recycled would be categorized by SCE in order to assure appropriate final disposal. Non-hazardous waste would be transported to local waste management facilities. Waste materials from the project when possible would be delivered to the closest waste management facility which is located within one mile of the substation location.

Soil excavated for the Proposed Project would either be used as fill or disposed of off site at an approved disposal facility.

3.7 Geotechnical Studies

SCE has conducted a geotechnical evaluation of the substation site and the subtransmission source line segments. The geotechnical studies would include an evaluation of the water table depth, evidence of faulting, liquefaction potential, physical properties of subsurface soils, soil resistivity, slope stability, and the presence of hazardous materials.

3.8 Environmental Surveys

SCE has conducted an initial biological evaluation and would conduct further focused environmental surveys after project approval, but prior to the start of construction. These Surveys would identify and/or address any potential sensitive biological and cultural resources in the vicinity of the Proposed Project, including the subtransmission source line routes, telecommunications routes, wire stringing locations, access roads, and staging area(s). Where feasible, the information gathered from these surveys may be used to finalize project design in order to avoid sensitive resources, or to minimize the potential impact to sensitive resources from project-related activities. The results of these surveys would also determine the extent to which environmental specialist construction monitors would be required.

The following environmental surveys would occur prior to construction:

- Protocol level Delhi-sands flower loving fly surveys
- Protocol level San Bernardino kangaroo rat surveys
- Protocol level Burrowing Owl surveys
- Protocol level California gnatcatcher surveys
- Sensitive plant surveys
- Plant community mapping and habitat assessment
- Los Angeles pocket mouse surveys

If sensitive biological or cultural resources are identified in preconstruction surveys, minimization or avoidance measures would be implemented. If avoidance is not feasible, SCE would work with the appropriate agencies to determine the mitigation measures that would reduce the potential impacts to sensitive biological and cultural resources.

3.9 Worker Environmental Awareness Training

Prior to construction, a Worker Environmental Awareness Program (WEAP) would be developed based on the final engineered design, the results of pre-construction surveys, and a list of mitigation measures, if any, developed by the CPUC to mitigate significant environmental effects of the Proposed Project. A presentation would be prepared by SCE

and shown to all site personnel prior to the commencement of work. A record of all trained personnel would be kept with the construction site representative.

In addition to instruction on compliance with any additional site-specific biological or cultural resources protective measures and project mitigation measures developed after the pre-construction surveys, all construction personnel would also receive the following:

- A list of phone numbers of SCE environmental specialist personnel associated with the Proposed Project (archaeologist, biologist, environmental compliance coordinator, and regional spill response coordinator)
- Instruction on the South Coast Air Quality Management District Fugitive Dust and Ozone Precursor Control Measures
- Instruction on what typical cultural resources look like, and instruction that if discovered during construction, work is to be suspended in the vicinity of any find and the site foreman and archeologist or environmental compliance coordinator is to be contacted for further direction
- Instruction on what typical biological resources look like, and instruction that if discovered during construction, work is to be suspended in the vicinity of any find and the site foreman and biologist or environmental compliance coordinator is to be contacted for further direction
- Instruction on the individual responsibilities under the Clean Water Act, the project SWPPP, site-specific BMPs, and the location of Material Safety Data Sheets for the project
- Instructions to notify the foreman and regional spill response coordinator in case of hazardous materials spills and leaks from equipment, or upon the discovery of soil or groundwater contamination
- A copy of the truck routes to be used for material delivery
- Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Proposed Project

3.10 Construction Equipment and Personnel

The estimated number of personnel and equipment required for construction activities of the Proposed Project are summarized in Table 3.6, Construction Equipment and Workforce Estimates.

Construction would be performed by either SCE construction crews or contractors. Contractor construction personnel would be managed by SCE construction management personnel. SCE anticipates that crews would work concurrently whenever possible;

however, the estimated deployment and number of crew members would be dependent upon local jurisdiction permitting, material availability, and construction scheduling.

In general, construction efforts would occur in accordance with accepted construction industry standards.

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Substation				
Survey (4 people)	6	2 Survey Truck	4	Gas
Grading (8 people)	40	1-Dozer 2-Loader 1-Scraper 1-Grader 1-Water Truck 2-4X4 Backhoe 1-4X4 Tamper 1-Tool Truck 1-Pickup 4X4	4 4 4 6 5 2 2 2 2	Diesel Diesel Diesel Diesel Diesel Diesel Diesel Gas Gas
Soil Import / Export (1 person per truck)	8	7-Dump Truck	8	Diesel
Fencing (6 people)	14	1-Bobcat 1-Flatbed Truck 1-Crewcab Truck	4 2 2	Diesel Diesel Gas
Temporary Power-Pole Installation (2 people)	4	1- Work Truck with attached Auger	4	Gas
Civil (10 people)	60	1-Excavator 1-Foundation Auger 1-Backhoe 1-Dump Truck 1-Skip Loader 1-Water Truck 2-Bobcat Skid Steer 1-Forklift 1-17 ton Crane 1-Tool Truck 1-Concrete Truck	4 4 4 4 4 2 4 2 2 2 2	Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel Gas Diesel
MEER (6 people)	30	1-Carry all Truck 1-Stake Truck	2 2	Gas Gas

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Electrical (10 people)	80	1-Scissor Lift 2-Manlift 1-Reach Manlift 1-15 ton Crane 1-Tool Trailer 2-Crew Truck	3 3 3 2 2 2	Propane Diesel Diesel Diesel Gas
Wiring (6 people)	40	1-Manlift 1-Tool Trailer	1 2	Diesel
Transformers (4 people)	30	1-Crane 1-Forklift 2-Crew Truck 1-Low Bed Truck	4 2 2 2	Diesel Diesel Gas Diesel
Maintenance Crew Equipment Check (4 people)	30	2-Maintenance Truck	4	Gas
Testing (2 people)	80	1-Crew Truck	2	Gas
Asphalting (8 people)	10	2-Paving Roller 1-Asphalt Paver 1-Stake Truck 1-Tractor 1-Dump Truck 2-Crew Truck 1-Asphalt Curb Machine	4 4 2 4 4 2 4	Diesel Diesel Diesel Diesel Diesel Gas Diesel
Landscaping (8 people)	30	1-Tractor 1-Dump Truck	3 3	Diesel Diesel
Alder Substation Work to Accommodate 66 kV Subtransmission Source Line				
Fencing (2 people)	3	1-Bobcat 1-Flatbed Truck 1-Crewcab Truck	4 2 2	Diesel Diesel Gas

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Civil (4 people)	15	1-Excavator 1-Foundation Auger 1-Backhoe 1-Dump Truck 1-Skip Loader 1-Water Truck 2-Bobcat Skid Steer 1-Forklift 1-Tool Truck 1-Concrete Truck	4 4 4 4 4 2 4 2 2 2	Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel Gas Diesel
Electrical (4 people)	15	1-Scissor Lifts 2-Manlifts 1-Reach Manlift 1-15 ton Crane 1-Tool Trailer	3 3 3 2 2 2	Propane Diesel Diesel Diesel Diesel Gas
Wiring (2 people)	5	1-Tool Trailer	1	
Maintenance Crew Equipment Check (2 people)	5	2-Maintenance Truck	4	Gas
Testing (2 people)	10	1-Crew Truck	2	Gas
Asphalting (5 people)	1	2-Paving Roller 1-Asphalt Paver 1-Stake Truck 1-Tractor 1-Dump Truck 2-Crew Truck 1-Asphalt Curb Machine	4 4 2 4 4 2 4	Diesel Diesel Diesel Diesel Diesel Gas Diesel

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Etiwanda Substation Work to Accommodate 66 kV Subtransmission Source Line				
Civil (4 people)	20	1-Excavator 1-Foundation Auger 1-Backhoe 1-Dump Truck 1-Skip Loader 1-Water Truck 2-Bobcat Skid Steer 1-Forklift 1-Tool Truck 1-Concrete Truck	4 4 4 4 4 2 4 2 2 2	Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel Gas Diesel
Electrical (4 people)	20	1-Scissor Lifts 2-Manlifts 1-Reach Manlift 1-15 ton Crane 1-Tool Trailer 2-Crew Truck	3 3 3 2 2 2	Propane Diesel Diesel Diesel Gas
Wiring (2 people)	10	1-Tool Trailer	1	
Maintenance Crew Equipment Check (2 people)	8	2-Maintenance Truck	4	Gas
Testing (2 people)	15	1-Crew Truck	2	Gas
66 kV Subtransmission Construction				
Survey (4 people)	11	2-1 Ton Truck, 4x4	8	Gas
Staging area (4 people)	Duration	1-Ton Crew Cab, 4x4 1-Boom/Crane Truck 1-Rough Terrain Forklift 1-Truck, Semi Tractor	4 2 6 2	Diesel Diesel Diesel Diesel
Road Work (5 people)	4	1-Ton Crew Cab, 4x4 1-Road Grader 1-Water Truck 1-Backhoe/Front Loader 1-Drum Type Compactor 1-Track Type Dozer 1-Lowboy Truck/Trailer	8 6 8 4 4 4 3	Diesel Diesel Diesel Diesel Diesel Diesel Diesel

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Guard Structure Installation (6 people)	12	1-3/4 Ton Truck, 4x4 1-1Ton Crew Cab, 4x4 1-Bucket Truck 1-Boom/Crane Truck 1-Auger Truck 1-Compressor Trailer 1-Extendable Flat Bed Pole Truck	6 6 4 6 4 4 8	Gas Diesel Diesel Diesel Diesel Diesel Diesel
Wood/LWS Pole Removal (6 people)	6	2-1 Ton Crew Cab, 4x4 1-Bucket Truck 1-Boom/Crane Truck 1-Compressor Trailer 1-Flat Bed Pole Truck	8 4 6 4 8	Diesel Diesel Diesel Diesel Diesel
Install TSP Foundations (7 people)	90	1-1 Ton Crew Cab, 4x4 1-Boom/Crane Truck 1-Auger Truck 1-Water Truck 1-Dump Truck 1-Backhoe/Front Loader 3-Concrete Mixer Truck	4 4 6 8 4 4 2	Diesel Diesel Diesel Diesel Diesel Diesel Diesel
TSP Haul (4 people)	12	1-¾ Ton Truck, 4x4 1-Boom/Crane Truck 1-Flat Bed Pole Truck	4 6 8	Gas Diesel Diesel
TSP Assembly (15 people)	45	2-¾ Ton Truck, 4x4 2-1 Ton Crew Cab, 4x4 1-Compressor Trailer 1-Boom/Crane Truck	4 4 4 6	Gas Diesel Diesel Diesel
TSP Erection (15 people)	45	2-¾ Ton Truck, 4x4 2-1 Ton Crew Cab, 4x4 1-Compressor Trailer 1-30 Ton Rough Terrain Crane	4 4 4 6	Gas Diesel Diesel Diesel

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Install Wood/LWS Poles (15 people)	61	1-1 Ton Crew Cab, 4x4 1-Bucket Truck 1-Boom/Crane Truck 1-Auger Truck 1-Backhoe/Front Loader 1-Extendable Flat Bed Pole Truck	6 4 6 4 6 8	Diesel Diesel Diesel Diesel Diesel Diesel
Install Conductor (20 people)	50	3-1 Ton Crew Cab, 4x4 4-Bucket Truck 1-Boom/Crane Truck 2-Wire Truck/Trailer 1-Dump Truck 1-3 Drum Sock Line Puller 1-Bull Wheel Puller 1-Static Truck/Tensioner 1-Backhoe/Front Loader 2-Lowboy Truck/Trailer	4 8 8 6 2 6 6 6 2 4	Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel Diesel
Guard Structure Removal (6 people)	8	1- ¾ Ton Truck, 4x4 1-1 Ton Crew Cab, 4x4 1-Bucket Truck 1-Boom/Crane Truck 1-Compressor Trailer 1-Extendable Flat Bed Pole Truck	6 6 4 6 4 8	Gas Diesel Diesel Diesel Diesel Diesel
Restoration (7 people)	11	2-1 Ton Crew Cab, 4x4 1-Road Grader 1-Water Truck 1-Backhoe/Front Loader 1-Drum Type Compactor 1-Lowboy Truck/Trailer	4 6 8 2 4 3	Diesel Diesel Diesel Diesel Diesel Diesel

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Vault Installation	12	2-1 Ton Crew Cab, 4x4	6	Diesel
(6 people)		1-Backhoe/Front Loader	6	Diesel
		1-Excavator	6	Diesel
		1-Dump Truck	6	Diesel
		1-Water Truck	8	Diesel
		1-165 Ton Crane	6	Diesel
		3-Concrete Mixer Truck	2	Diesel
		1-Lowboy Truck/Trailer	4	Diesel
		3-Flat Bed Truck/Trailer	4	Diesel
Duct Bank Installation	8	2-1 Ton Crew Cab, 4x4	4	Diesel
(6 people)		1-Backhoe/Front Loader	6	Diesel
		2-Dump Truck	6	Diesel
		1-Pipe Truck/Trailer	6	Diesel
		1-Water Truck	8	Diesel
		3-Concrete Mixer Truck	2	Diesel
		1-Compressor Trailer	6	Diesel
		1-Lowboy Truck/Trailer	4	Diesel
Telecommunications Construction				
Cable Construction	23	2-Bucket Truck	7	Diesel
(5 people)		1-Pick-up Truck	7	Diesel
		2-Splicing Truck	7	Diesel
		2-Cable Dolley	7	
		1-2 Axle Trailer	7	
Vault and Duct Bank Installation	20	1-Foreman Truck	8	Diesel
(6 people)		1-Crew Cab Truck	8	Diesel
		1-Dump Truck	8	Diesel
		1-Backhoe/Front Loader	8	Diesel
		1-Water Truck	8	Diesel
		1-Compressor Trailer	8	Diesel
		3-Concrete Mixer Truck	4	Diesel
Distribution Construction- Getaways				
Vault Installation	5	1- Backhoe	8	Diesel
(5 people)	10	1- Dumptruck	8	Diesel
	3	1-Precaster Boom Truck	7	Diesel
	3	1- Concrete Truck	7	Diesel
	10	1- Crew Pickup Truck	4	Gasoline

Table 3.6 Construction Equipment and Workforce Estimates

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)	Fuel Type
Trench	20	1- Backhoe	8	Diesel
(9 people)	10	1- Dumptruck	8	Diesel
	20	1- Water Truck	8	Diesel
	20	1- Gang Truck	8	Diesel
	3	1- Stomper	8	Gasoline
	4	1- Conduit Vendor Truck	4	Diesel
	6	1- Concrete Truck	8	Diesel
	20	1- Crew Pickup Truck	4	Gasoline
Distribution Construction- Relocation of Existing Facilities				
Location 1	1	1- Line Truck	6	Diesel
(4 people)	1	1- Pickup Truck	6	Diesel
Location 2	1	1- Line Truck	8	Diesel
(4 people)	1	1- Pickup Truck	8	Diesel
Location 3	3	2- Line Truck	7	Diesel
(8 people)	3	2- Pickup Truck	7	Diesel
Location 4	1	1- Line Truck	6	Diesel
(4 people)	1	1- Pickup Truck	6	Diesel
Location 5	2	1- Rodder Truck	4	Diesel
(5 people)	2	1- Cable Dolley	4	
	2	1-Reel Truck	4	Diesel
	2	2- Line Truck	8	Diesel
	2	3- Pickup Truck	3	Diesel
Location 6	1	1- Rodder Truck	6	Diesel
(7 people)	1	1- Cable Dolley	6	
	1	1- Reel Truck	6	Diesel
	2	2- Line Truck	4	Diesel
	2	2- Pickup Truck	6	Diesel
	2	1- Concrete Truck	4	Diesel
	2	1-Dump Truck	6	Diesel
	2	1-Back Hoe	8	Diesel

3.11 Construction Schedule

SCE anticipates that construction of the Proposed Project would take approximately 12 months. Construction would commence following CPUC approval, final engineering, and procurement activities.

3.12 Project Operation

Falcon Ridge Substation would be unattended and electrical equipment within the substation would be remotely monitored and controlled by an automated system from SCE's Vista Switching Center. SCE personnel would visit for electrical switching and routine maintenance purposes. Routine maintenance would include equipment testing, monitoring, and repair. SCE personnel would generally visit the substation three to four times per month.

The new 66 kV subtransmission lines would be maintained in a manner consistent with CPUC General Order No. 165. Normal operation of the 66 kV subtransmission lines would be controlled remotely through SCE control systems. SCE maintains an inspection frequency of the energized subtransmission overhead facilities a minimum of once per year via ground and/or aerial observation. The frequency of inspection and maintenance activities would depend upon weather effects and any unique problems that may arise due to such variables as substantial storm damage or vandalism. Maintenance activities include repairing conductors, replacing insulators, replacing poles, and access road maintenance.

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4.0 ENVIRONMENTAL IMPACT ASSESSMENT

This section examines the potential environmental impacts of the Proposed Project and alternatives. The analysis of each resource category begins with an examination of the existing physical setting (baseline conditions as determined pursuant to Section 15125(a) of the CEQA Guidelines) that may be affected by the Proposed Project. The effects of the Proposed Project are defined as changes to the environmental setting that are attributable to project construction and operation.

Significance criteria are identified for each environmental issue area. The significance criteria serve as a benchmark for determining if a project would result in a significant adverse environmental impact when evaluated against the baseline. According to the CEQA Guidelines Section 15382, a significant effect on the environment means "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project…" If significant impacts are identified, feasible Mitigation Measures are formulated to eliminate or reduce the level of the impacts and focus on the protection of sensitive resources.

CEQA Guidelines Section 15126.4(a)(3) states that mitigation measures are not required for effects which are not found to be significant. Therefore, where an impact is less than significant no mitigation measures have been proposed. In addition, compliance with laws, regulations, ordinances, and standards designed to reduce impacts to less than significant levels are not considered mitigation measures under CEQA. Where potentially adverse impacts may occur, SCE has proposed Applicant Proposed Measures (APMs) to minimize the environmental impacts.

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4.1 Aesthetics

This section examines the aesthetic nature of the Proposed Project area in order to determine how the Proposed Project would affect the visual character of the existing landscape. This section analyzes whether the Proposed Project would substantially alter the perceived visual character of the environment and cause visual impacts. Alternatives to the Proposed Project are also discussed.

4.1.1 Environmental Setting

Regional Setting

Aesthetic resources are generally defined as the visible natural and built features of a landscape. Landforms, water, and vegetation patterns are among the natural landscape features that define an area's visual character, whereas buildings, roads, and other structures reflect human modifications to the landscape. These natural and built landscape features are considered aesthetic resources that contribute to the public's experience and appreciation of the environment.

The Proposed Project area is located in the San Bernardino valley. The valley region is defined as the area within San Bernardino County that is south and west of the U.S. Forest Service boundaries. The San Bernardino mountain range, trending southeast, forms the eastern limit of the San Bernardino valley, along with the Yucaipa and Crafton Hills. The southern limits of the San Bernardino valley are marked by alluvial highlands extending south from the San Bernardino and Jurupa Mountains. The San Bernardino valley region is approximately 60 miles east of the Pacific Ocean and borders Los Angeles, Orange, and Riverside Counties. It is approximately 50 miles in length from west to east and encompasses 500 square miles. Elevations in the area range from about 600 feet on the San Bernardino valley floor near Chino to about 1,400 feet in the mountains near the cities of San Bernardino and Redlands.

Proposed Project Area Setting

The Proposed Project would be located within the Cities of Fontana, Rancho Cucamonga and Rialto, as well as a small portion of unincorporated San Bernardino County.

The majority of the Proposed Project would be located in the City of Fontana, including the Proposed Substation site, the Proposed Distribution Getaways, the Proposed Etiwanda Subtransmission Source Line Route, the Proposed Telecommunication Facilities, and part of the Proposed Alder Subtransmission Source Line Route. Additionally, the majority of the Etiwanda Subtransmission Source Line Route would be located within an existing utility corridor. The area of the Proposed Project is set on an alluvial plain extending southward from the confluence of Lytle Creek and the San Sevaine Wash. Providing a backdrop for the Proposed Project, the San Bernardino and San Gabriel Mountains are located to the north and the Jurupa Hills are located to the south.

The area in which the Proposed Project would be located is characterized by suburban residential developments, industrial uses, commercial and retail establishments, and

public utility infrastructure. It is visually dominated by a built environment consisting of large tracts of homes, warehouses and utility infrastructure; however, it is interspersed with some currently vacant lands that provide relatively expansive views.

Visual Context and Key Observation Points

Photo documentation of the Proposed Project area was carried out in order to convey an understanding of its existing visual character. Context photographs were taken from a variety of publicly accessible locations, displaying a representative cross-section of the Proposed Project area's visual character. The photographs include images of residential streets and commercial, agricultural and recreational areas, as shown in Figures 4.1-1 through 4.1-4.

Other photographs were selected to establish Key Observation Points (KOPs) for the purpose of performing a visual simulation analysis. The KOPs are located in publicly accessible areas with views of Proposed Project components. Visual simulations were prepared for views from KOP locations to illustrate the potential visual effects of the Proposed Project components on viewers at these locations. The visual simulations present computer-generated, photo-realistic images of the Proposed Project components as they would appear from each KOP. Figure 4.1-5, Locations of Key Observation Points (KOPs), identifies the locations of the KOPs used in the visual simulation analysis. The "before project" (existing conditions) and "after project" (visual simulation) images of from the KOPs are shown in Figures 4.1-6 through 4.1-13.

4.1.2 Regulatory Setting

There are no federal or State regulations, other than the California Environmental Quality Act (CEQA), related to aesthetics and visual resources that apply to the Proposed Project.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project, because the CPUC regulates and authorizes the construction of investor-owned public utility facilities. Although local jurisdictions are preempted from local land use and zoning regulations, and discretionary permitting requirements, General Order Number 131-D, Section III.C directs the utility to "communicate with, and obtain the input of, local authorities regarding land-use matters and obtain any non-discretionary local permits." As part of its environmental review process, Southern California Edison Company (SCE) considered local aesthetic resource policies, which are described in the following text.

Figure 4.1-1 Context Photos A and B

A: Shopping center near intersection of Sierra Lakes Parkway and Mango Avenue

B: Alder Substation at intersection of W. Casmalia Street and N. Locust Avenue

Figure 4.1-2 Context Photos C and D

C: Industrial area near Etiwanda Substation

D: View of existing right of way near W. Liberty Parkway (church overflow parking lot)

Figure 4.1-3 Context Photos E and F

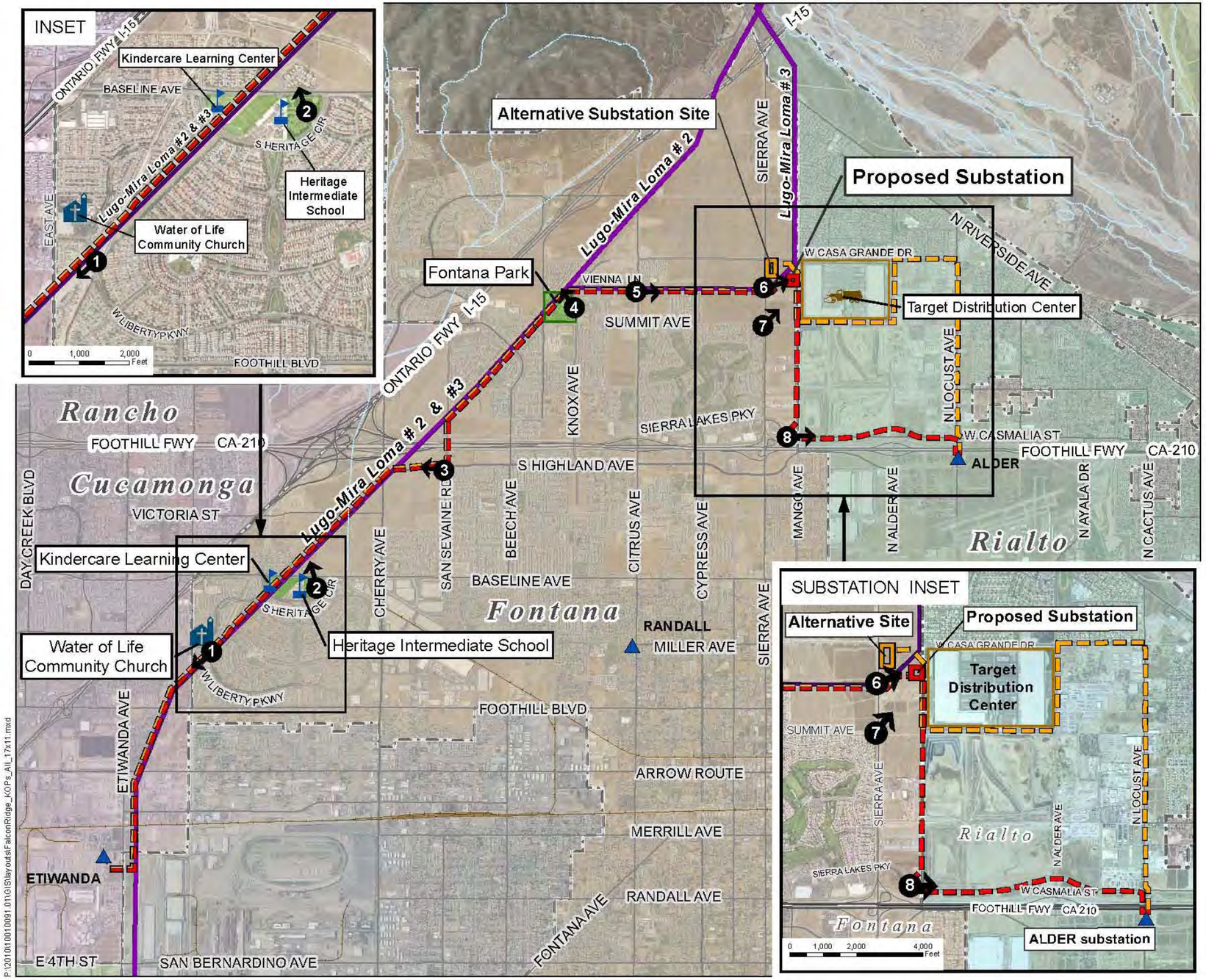
E: View of existing right of way along S. Heritage Circle (near Kindercare Center)

F: View of existing right of way from San Sevaine Road (facing west)

Figure 4.1-4 Context Photos G and H

G: San Sevaine Road (facing north towards State Route 210 freeway)

H: View of existing right of way from end of Cypress Street and north of Summit Avenue



Falcon Ridge Substation Project

Figure 4.1-5

Locations of Key Observation Points [KOPs]

9 Location of KOPs and ID Number with Direction of View

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- Proposed
- Alternative
- Common to Both

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

N 0 0.5 1 2 Miles

11/3/2010

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-6
KOP 1 - View from West Liberty Parkway

Existing Conditions

Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-7
KOP 2 - View from Heritage Intermediate School

Existing Conditions

Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-8
KOP 3 - View from South Highland Avenue and San Sevaine Road

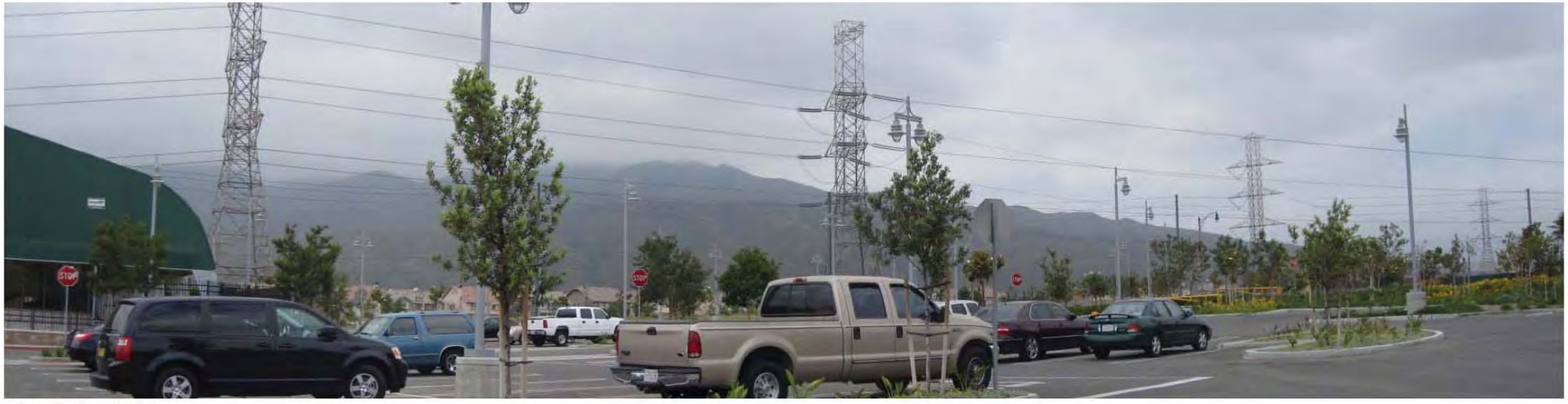
Existing Conditions

Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-9
KOP 4 - View from Fontana Park

Existing Conditions



Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-10
KOP 5 - View looking east from Citrus Avenue

Existing Conditions

Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-11
KOP 6 - View from Sierra Avenue looking east toward Proposed Substation Site

Existing Conditions

Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-12
KOP 7 - View from Sierra Avenue and Summitt Avenue

Existing Conditions

Visual Simulation

FALCON RIDGE SUBSTATION PROJECT

Figure 4.1-13
KOP 8 - View from Sierra Lakes Parkway and Mango Avenue intersection

Existing Conditions

Visual Simulation

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County of San Bernardino General Plan

San Bernardino County is vast and consists of three distinct geographic regions: the Valley, the Mountains, and the Desert (San Bernardino County, 2007). The General Plan addresses the distinctions between the three geographic regions while being mindful of the need to have unified goals and policies that would address countywide issues and opportunities. Most of the policies within the General Plan address the County in its entirety and are referred to as countywide policies. Countywide policies are presented under each element of the General Plan.

Land Use Element

The following Land Use Element countywide policy is relevant to the Proposed Project's aesthetic considerations:

- LU 1.2. The design and siting of new development will meet locational and development standards to ensure compatibility of the new development with adjacent land uses and community character.

Open Space Element

The following Open Space Element countywide policies are relevant to the Proposed Project's aesthetic considerations:

- OS 1.9. Ensure that open space and recreation areas are both preserved and provided to contribute to the overall balance of land uses and quality of life.
- OS 3.6. Consistent with safety and operational considerations, support the use of channels, levees, aqueduct alignments, and similar linear spaces for open space and/or trail use.
- OS 5.1. Features meeting the following criteria will be considered for designation as scenic resources:
    a. A roadway, vista point, or area that provides a vista of undisturbed natural areas
    b. Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed (the area within the field of view of the observer)
    c. Offers a distant vista that provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas)
- OS 7.3. Because open space can promote neighborhood and civic identity by providing a clear definition to districts and neighborhoods, the County supports the use of open space and landscaping to define neighborhoods and district boundaries and to delineate edges between the natural and built environment.

City of Fontana General Plan

Land Use Element

The following City of Fontana Land Use Element policies are relevant to the Proposed Project (City of Fontana, 2003):

GOAL #2:

"Quality of life in our community [Fontana] is supported by development that avoids negative impacts on residents and businesses and is compatible with, and enhances, our natural and built environment."

Relevant policies based on Goal #2:

3. Infill development within existing residential neighborhoods shall be compatible with adjacent uses and enhance the local character.
4. Hillside development and development adjacent to natural areas at northern and southern edges of the City shall be designed to preserve natural features and habitat.

Community Design Element

The following City of Fontana Community Design Element policies are relevant to the Proposed Project:

GOAL #2:

"We preserve and use our open spaces as recreational amenities, visual boundaries and view corridors."

Relevant policies based on Community Design, Goal #2:

5. Preservation of open space near the periphery of City boundaries provides important visual contrast to the built environment.

GOAL #6:

"Conflict and spillover effects at the interface of differing land uses are minimized with appropriate design standards."

Relevant policies based on Community Design, Goal #6:

1. Specialized design standards and regulations shall be applied to those areas where conflicting land uses meet.
3. One or more techniques for reducing land use conflicts may be applied in any particular situation.

City of Rancho Cucamonga General Plan

Land Use Element

The following City of Rancho Cucamonga Land Use, Community Design and Historic Resources policies are relevant to the Proposed Project (City of Rancho Cucamonga, 2010):

- LU-1.1. Protect neighborhoods from the encroachment of incompatible activities or land uses that may have a negative impact on the residential living environment.
- LU-9.6. Maintain the rural development pattern and character of the Etiwanda area through the Etiwanda Specific Plan.
- LU-11.2. Continue to require the undergrounding of utility lines and facilities wherever feasible to minimize the unsightly appearance of overhead utility lines and utility enclosures.
- LU-13.1. On north-south roadways, open space corridors, and other locations where there are views of scenic resources, trees, and structures, encourage framing and orientation of such views at key locations, and endeavor to keep obstruction of views to a minimum.

Resource Conservation Element

The following City of Rancho Cucamonga Resource Conservation Policies are relevant to the proposed project:

- RC-1.1. Preserve sensitive land resources that have significant native vegetation and/or habitat value.
- RC-1.2. Develop measures to preserve and enhance important views along north-south roadways, open space corridors, and at other key locations where there are significant views of scenic resources.
- RC-4.5. Support the development of private sources of sustainable and environmentally friendly energy supplies, provided these are consistent with City aesthetic and public safety goals.

4.1.3 Significance Criteria

The significance criteria for assessing the impacts to aesthetics come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Have a substantial adverse effect on a scenic vista

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

4.1.4 Impact Analysis

The visual analysis was based on:

- Local planning documents
- Field observations of the Proposed Project area conducted in June 2010
- Ground-level photographs
- KOPs
- Computer-generated, photo realistic visual simulations of the Proposed Project
- Assessing the magnitude of the changes to the existing visual baseline posed by the Proposed Project

The study was designed to respond to the CEQA Guidelines for visual impact analysis, which emphasize the protection of established scenic resources and existing visual characteristics of a project area.

Consideration was given to the following factors in determining the extent and implications of the visual changes:

- Specific changes in the landscape's visual composition, character, and any specially valued qualities
- The visual context (what surrounds the Proposed Project area)
- The extent to which the affected environment contains places or features that have been designated in government plans for visual protection or special consideration
- The effects on landscapes visible from public viewpoints

This visual analysis focuses on the Proposed Substation and Proposed Subtransmission Source Line Routes, as these would be new structures in the landscape. The Proposed Telecommunication Facilities would be located on the Proposed Subtransmission Source Line Route poles or underground, and the Proposed Distribution Getaways would be underground, (see Section 3.1.4, Telecommunications Description, and Section 3.1.1,

Falcon Ridge Substation Description, subsection Distribution Getaways), and thus would have minimal visual impact. Therefore, they are not discussed further in this analysis.

No Impact

Construction and operation of the Proposed Project would not produce significant impacts for the following CEQA criteria:

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

There would be no impact to scenic vistas, as there are no scenic vista points in the Proposed Project area designated for protection by federal, State or local governments.

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

There would be no impact to trees, rock outcroppings or historic buildings located within designated state scenic highways, as there are no state scenic highways located in the Proposed Project area (California Department of Transportation, 2010).

Construction Impacts

Construction of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

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

Visual impacts of construction activities would vary, depending on proximity of the viewer. Construction related visual impacts would include construction equipment and vehicles used during project construction activities. Construction staging areas would also be used during the construction period. Construction of the Proposed Project is expected to last approximately 12 months. However, not all locations throughout the Proposed Project area would be exposed to visual impacts during the entire 12-month period, because construction activities would move from place to place in the Proposed Project area. Therefore, any given location in the Proposed Project area would be exposed to temporary visual impacts during an even shorter period of time, less than the overall 12-month project construction duration. Therefore, visual impacts from construction activities would be considered less than significant.

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

Under normal circumstances, construction of the Proposed Project would occur during daylight hours per the applicable County and City Noise Ordinances over the course of approximately 12 months. In the event that an aggressive construction schedule is required, longer construction hours may occur. However, depending on the time of year this work would take place, there would likely be enough daylight hours available to avoid working in the dark.

In the event that construction activities for the Proposed Substation were to occur during evening hours, lighting would be used to protect the safety of the construction workers, with small lights attached to temporary poles. These lights would be oriented and shielded to minimize their effect on the nearest residences, which are located approximately 500 feet northeast of the Proposed Substation site. Construction activities for the Proposed Subtransmission Source Line Routes are not anticipated to occur at night, so lighting would not be needed. Stand-alone portable light towers may be used to provide illumination at night at the staging areas/substation site for security purposes. These lights would be oriented and shielded to minimize their effect on any nearby sensitive receptors. Potential impacts from lighting that may be needed during construction would be temporary and considered less than significant.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

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

Implementation of the Proposed Project would result in construction of a new electrical substation on currently vacant land and associated subtransmission lines primarily in existing SCE transmission rights-of-ways adjacent to suburban residential developments, industrial uses, commercial and retail establishments, and public utility infrastructure. The terrain of the Proposed Project area is flat. The area immediately surrounding the Proposed Substation site is characterized by a suburban community development pattern, along with a large Retail Distribution Center warehouse facility, and currently vacant lands.

The Proposed Project would introduce new features (i.e., the Proposed Substation and the Proposed Subtransmission Source Line Routes) into the Proposed Project area that would result in different levels of change to existing views, depending on their proximity. Visual simulations were produced to facilitate this analysis and represent a range of viewpoints in the area. (Please see Figures 4.1-6 through 4.1-13.)

KOP 1 – View from West Liberty Parkway (Figure 4.1-6)

This visual simulation shows the Proposed Etiwanda Subtransmission Source Line Route as it would be seen from the existing parking lot. An existing lattice tower transmission line is the most prominent feature in the view from this KOP. The transmission towers are in the middleground, and the power lines extend overhead. These would remain dominant elements in the landscape, and the Proposed Etiwanda Subtransmission Source Line Route poles and lines would add new prominent features in the landscape. However, since the viewshed is already characterized as being within a major electrical utility corridor, the Proposed Project would not substantially degrade the character of the existing environment. Please refer to context photo D in Figure 4.1-2, Context Photos C and D, for additional views of the surrounding land uses.

KOP 2 – View from Heritage Intermediate School (Figure 4.1-7)

This visual simulation shows the Proposed Etiwanda Subtransmission Source Line Route as it would be seen from Heritage Intermediate School. Visual impacts would be minimal, given that views of the surrounding hills in the background would not be obstructed by the Proposed Etiwanda Subtransmission Source Line Route, and because the visibility of the new line would be minor relative to the existing lattice towers and transmission lines in the view. Please refer to context photo E in Figure 4.1-3 Context Photos E and F, for additional views of the surrounding land uses.

KOP 3 – View from South Highland Avenue and San Sevaine Road (Figure 4.1-8)

This visual simulation shows the Proposed Etiwanda Subtransmission Source Line Route as it would be seen from the intersection of South Highland Avenue and San Sevaine Road. Installation of the Proposed Etiwanda Subtransmission Source Line would have a noticeable visual effect at this intersection. A mix of lightweight steel, tubular steel and wood poles would be prominently visible from this viewpoint. However, when viewed in the context of the visual character of the immediate area, the proposed poles would not be visually inconsistent with existing features of the area, as existing lattice towers, overhead power lines, and the 210 Freeway are located in the vicinity. Please refer to context photo G in Figure 4.1-4, Context Photos G and H, for a view of current nearby land uses.

KOP 4 – View from Fontana Park (Figure 4.1-9)

This visual simulation shows the Proposed Etiwanda Subtransmission Source Line Route as it would be seen from Fontana Park. Existing lattice tower transmission lines are prominent in the view from this KOP. Existing vegetation and hills in the background are already obscured by existing lattice towers and overhead power lines. However, when viewed in the context of the visual character of the immediate area, the proposed poles would not be visually inconsistent with existing features of the area, as existing lattice towers and overhead power lines are located in the vicinity.

KOP 5 – View looking east from Citrus Avenue (Figure 4.1-10)

This visual simulation shows the Proposed Etiwanda Subtransmission Source Line Route as it would be seen looking east from Citrus Avenue. An existing lattice tower transmission line is prominent in the view from this KOP. Although the existing transmission towers are in the middle and background view from this KOP, the existing power lines extend overhead and visually intersect with existing power lines running north-to-south along Citrus Avenue. These would remain dominant elements in the landscape, and the Proposed Etiwanda Subtransmission Source Line Route poles and lines would add new prominent features in the landscape. However, since the viewshed is already characterized as being within a major electrical utility corridor, the Proposed Project would not substantially degrade the character of the existing environment.

KOP 6 – View from Sierra Avenue looking east toward Proposed Substation Site (Figure 4.1-11)

This visual simulation shows the Proposed Substation and the Proposed Etiwanda and Alder Subtransmission Source Line Routes as they would be seen looking east from Sierra Avenue. The Proposed Substation would have a low profile and would not be considerably noticeable in this view. The Proposed Etiwanda Subtransmission Source Line Route would be noticeable in the view from this location, in addition to the existing transmission line. The Proposed Alder Subtransmission Source Line Route would also be visible in the background. However, as there are existing lattice tower transmission lines and light industrial buildings (i.e., the Distribution Center) in the vicinity, the Proposed Project would not substantially change the character of the existing environment.

KOP 7 – View from Sierra Avenue and Summit Avenue (Figure 4.1-12)

This visual simulation shows the Proposed Substation and the Proposed Etiwanda and Alder Subtransmission Source Line Routes as they would be seen looking northeast near the intersection of Sierra Avenue and Summit Avenue. As shown in this visual simulation, the low profile of the Proposed Substation would not be visible in the distance from this viewpoint. Where it passes in front of the Distribution Center, the Proposed Alder Subtransmission Source Line Route would be visible but still not highly prominent in the landscape, because the existing view already includes other existing transmission line infrastructure, traffic signals and street lights.

KOP 8 – View from Sierra Lakes Parkway and Mango Avenue (Figure 4.1-13)

This visual simulation shows the Proposed Alder Subtransmission Source Line Route as it would be seen looking east near the intersection of Sierra Lakes Parkway and Mango Avenue. In this visual simulation, the Proposed Alder Subtransmission Source Line Route would be visible as it would run north-south along the currently unimproved Mango Avenue and then turn east at West Casmalia Street. The Proposed Alder Subtransmission Source Line Route would be a new noticeable feature in the view, but it would not be prominent in the landscape nor would it block views from this location. There are also existing tall street lights and signal structures that populate the view, and the grassy hillside of the former landfill site and orderly line of trees along Mango Avenue would remain the key features in this viewshed. Visitors to the shopping center or Urgent Care Center just west of this location would have views of the Proposed Alder Subtransmission Source Line Route from the parking lot; however, due to the orientation of the storefronts, shoppers' views would be temporary and generally only as they are entering or leaving the center. Please refer to context photo A in Figure 4.1-1, Context Photos A and B, for additional views of the surrounding land uses.

Therefore, based on the analysis stated above, the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. The visual impact would be less than significant.

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

The Proposed Subtransmission Source Lines Routes would not require lighting, and, therefore, would not cause impacts from light or glare. Lighting at the Proposed Substation would consist of high-pressure sodium lights located in the switchyards, around the transformer banks, and in areas of the yard where operating and maintenance activities may take place during evening hours for emergency work or scheduled maintenance. Maintenance lights would be controlled by a manual switch and would normally be in the "off" position. Given that the Proposed Substation would be an unattended facility (i.e., no permanent on-site personnel), lighting at the site during operation would be minimal, if any, and would be directed downward and shielded to reduce glare outside the facility. During occasional maintenance or emergencies at night, maintenance lights would manually be turned on and used only temporarily. Thus, operation of the Proposed Substation would not create a new source of substantial light or glare, and impacts would be less than significant.

4.1.5 Alternative Substation Site

The Alternative Substation site is located on a currently vacant parcel at the southeastern corner of the Sierra Avenue and West Casa Grande Drive intersection. The visual character of the Alternative Substation site is very similar to that of the Proposed Project site.

The Alternative Substation site is geographically close to the Proposed Substation site. Therefore, the visual effect of placing the substation on the Alternative Substation site would differ minimally compared to the visual effect that would result from its establishment at the Proposed Substation site. In addition, the Proposed Substation's design would remain largely the same whether it is located at the Proposed Substation site or the Alternative Substation site. For these reasons, visual impact determinations associated with the Proposed Substation site would similarly apply to the Alternative Substation site. Impacts would be less than significant.

4.1.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes consist of both the Proposed Etiwanda Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route B. Although the physical specifications of the Alternative Alder Subtransmission Source Line Route B would be similar as those of the Proposed Alder Subtransmission Source Line Route (poles of equal height, similar spacing between poles, etc.), it would be 1 mile longer than the Proposed Alder Subtransmission Source Line Route, thereby resulting in a greater "visual footprint". It would also be visible to residences located on the north side of West Casa Grande Drive, as well as people working or traveling along North Locust Avenue. Therefore, the Alternative Alder Subtransmission Source Line Route B is not preferable to the Proposed Alder Subtransmission Source Line Route. Although the Alternative Subtransmission Source

Line Routes are not preferable to the Proposed Subtransmission Source Line Routes, visual impacts for the alternatives would still be less than significant.

4.1.7 References

San Bernardino County. 2007. County of San Bernardino General Plan. Available at: http://www.sbcounty.gov/landuseservices/general_plan/FINAL%20General%20Plan%20Text%20-%203-1-07_w_Images.pdf [cited July 2010].

California Department of Transportation. 2010. Officially Designated State Scenic Highways. Available at: http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm [cited July 2010].

City of Fontana. 2003. City of Fontana General Plan. http://www.cityoffontana.net [cited July 2010].

City of Rancho Cucamonga. 2010. City of Rancho Cucamonga General Plan. Available at: http://www.rcgeneralplan.com/files/downloads/Final_GeneralPlan.pdf [cited July 2010].

4.2 Agriculture and Forestry Resources

This section describes the agricultural and forestry resources in the area of the Proposed Project. The potential impacts of the Proposed Project and alternatives are also discussed.

4.2.1 Environmental Setting

The Proposed Project is located in San Bernardino County, primarily within the Cities of Fontana, Rialto, and Rancho Cucamonga. A small portion of the Proposed Etiwanda Subtransmission Source Line Route is also located in unincorporated San Bernardino County.

Agriculture has historically been an important part of San Bernardino County's economy. Despite the continued conversion of agricultural land to non-agricultural uses, agriculture is still an integral component of the County. The gross value of agricultural production in the year 2008 for the County totaled $547,433,900, a decrease of $24,734,300 from the previous year (Crop and Livestock Report, 2008). According to the Department of Agriculture/Weight and Measures, this decrease was primarily due to the substantial reduction in the unit price of milk and total value of nursery products (Departments of Weights and Measures, 2008). The overall loss of value was offset by the increased value of eggs and field crops. The top ten agricultural commodities (Gross Value) produced in San Bernardino County include milk, eggs, cattle and calves, replacement heifers, tree/shrubs, alfalfa, bok choi, oranges, indoor decorative plants, and ground cover.[1]

Citrus orchards, vineyards, livestock, and poultry farming have been the principal forms of agriculture found in the City of Fontana. While prominent in the City's past, these agricultural practices have declined in response to population growth and land development, and are no longer a significant element of the local economy. Remaining undeveloped land within the city, which may be considered suitable for farming purposes, is planned for a variety of urbanized uses, including residential, commercial, and industrial development. Given the minor level of investment in existing agricultural operations, limited supply of suitable farmland, and the City's preference for accommodation of population growth and economic development, agricultural resources are not included as a component of the proposed open space and conservation plan (City of Fontana, 2003a).

The City of Rialto began as a citrus-growing town with over 2,000 residents. However, in the 1950s as Rialto became one of the fastest growing cities in the region and orange groves were replaced by housing subdivisions. A remnant orange grove located on Cactus Avenue and Carter Street serves as a reminder of Rialto's heritage and produces a local source of citrus; the Land Use map designates the property as Open Space – Resources and applies the Historic Agriculture Overlay, ensuring its conservation and protection. Agriculture and forestry only represents 0.4 percent of employment within the City of Rialto (City of Rialto, 2010).

[1] Department of Agriculture/Weights and Measures. 2008. Crop and Livestock County of San Bernardino 2008 [online] http://www.co.san-bernardino. ca.us/awm/docs /201090710 awm_crop_report_2008.pdf [cited August 2010].

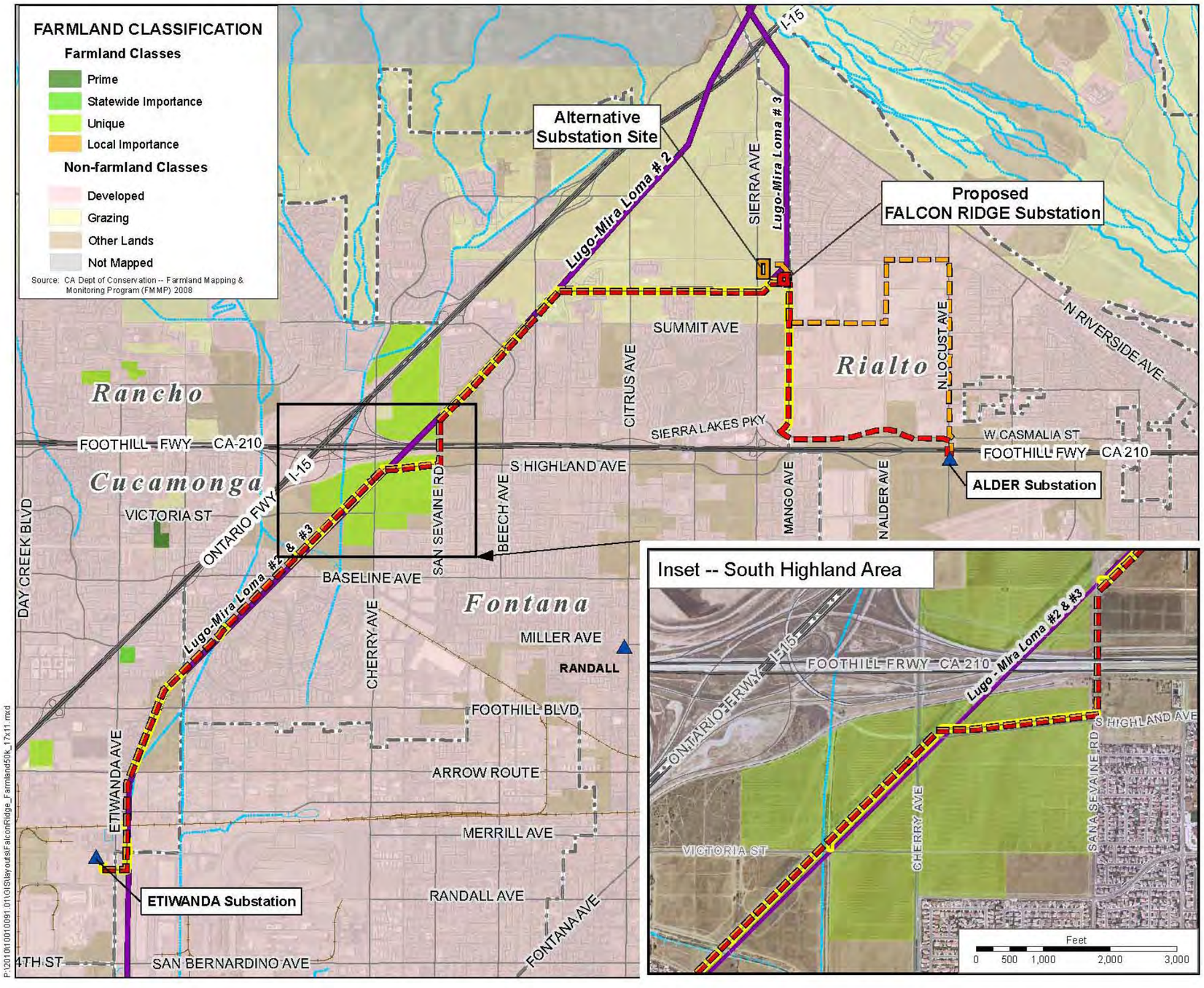
Rancho Cucamonga has a rich agricultural past. Evidence of the City's agricultural industry can still be found within the Alta Loma, Cucamonga, and Etiwanda areas of the City through remnant vineyards, citrus groves, olive groves, and support structures. Citrus and olive groves have been retained through creative planning where new residences are built within the groves, and trees are retained in accordance with the terms of the City's development approvals. Although the entire City was once an agricultural area, few large areas remain in active production today (City of Rancho Cucamonga, 2010).

California Environmental Quality Act (CEQA) Section 21060.1 defines agricultural land as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California. According to the California Department of Conservation, Prime Farmland and Farmland of Statewide Importance must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. The categories comprising the farmland classification in the County of San Bernardino and in the Cities of Fontana, Rialto and Rancho Cucamonga are summarized in Table 4.2-1, State-Designated Farmland Acreage.

Table 4.2-1 State-Designated Farmland Acreage

Category	San Bernardino County	Fontana	Rialto	Rancho Cucamonga
Prime Farmland	14,089	9	0	16
Farmland of Statewide Importance	6,747	54	17	17
Unique Farmland	2,661	469	0	157
Farmland of Local Importance	1,829	0	0	19
TOTAL	25,326	532	17	209
All measurements represent acres of farmland. Source: CDC, 2008				

State-designated farmlands noted in the Project area are based on the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) (CDC, 2007a), as shown in Figure 4.2, Farmlands.



P:\2010\01001091.011\GIS\layout\FalconRidge_Farmland50k_17x11.mxd

Falcon Ridge Substation Project

Figure 4.2

Farmlands

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**
- Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

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Proposed Substation Site

The Proposed Project area and the surrounding region consist primarily of built-up/developed areas and include very few farmlands. The Proposed Substation Site is within the City of Fontana and currently has a land use designation of "Regional Mixed Use," which is intended as centers for employment-generating commercial and industrial uses. There are no agricultural land use designations in or adjacent to the Proposed Substation Site.

A site visit conducted by AECOM on July 12, 2010, confirmed that the Proposed Substation Site is not being actively used for agricultural production.[2]

Additional information concerning land use and zoning is provided in Section 4.10, Land Use and Planning.

Etiwanda and Alder Substations

The Etiwanda Substation, in the City of Rancho Cucamonga, currently has a land use designation of "Heavy Industrial." There are no agricultural designations or uses in or around the Etiwanda Substation.

The Alder Substation, in the City of Rialto, currently has a land use designation of "Specific Plan." There are no agricultural designations or uses in or around the Alder Substation.

Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities

The Proposed Alder Subtransmission Source Line Route, Proposed Telecommunication Facilities, and access roads associated with this route traverse a total of approximately 3 miles of land, none of which is farmland identified by the FMMP as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. No portion of the Proposed Alder Subtransmission Source Line Route crosses land that is in agricultural use or designated for agricultural use.

The Proposed Etiwanda Subtransmission Source Line Route, Proposed Telecommunication Facilities, and access roads associated with this route traverse a total of approximately 9 miles of land and cross approximately 0.90 mile of land identified by the FMMP as Unique Farmland. A site visit confirmed that this 0.90 miles of land is not being actively used for agricultural production, even though the City of Fontana's General Plan designates this area as "Regional Mixed Use" and "Residential Planned Community."

Please refer to Figure 4.2, Farmland, which shows the Proposed Subtransmission Source Line Routes, and the types of farmland they traverse.

[2] Hallie Rulnick of AECOM conducted the site visit on July 12, 2010.

Staging Areas

Construction of the Proposed Project would require the establishment of temporary staging areas. A total of six possible staging areas have been identified, three in Fontana, two in Rancho Cucamonga, and one in Rialto. None of these potential staging areas are located in an area designated for agricultural use. A site visit confirmed that these staging areas are not being actively used for agricultural production.

Farmland Disturbance

Land disturbance for the Proposed Project would include surface modifications for the installation of access roads, the Proposed Substation, the Proposed Subtransmission Source Line Routes, the Proposed Telecommunication Facilities, and the Proposed Distribution Getaways. It is estimated that the total permanent land disturbance for the Proposed Project would be approximately 27.26 acres. During construction, it is estimated that the Proposed Project would temporarily disturb approximately 134.36 acres of land (please see Table 3.5, Estimated Land Disturbance).

The installation of new poles and the construction of new access roads associated with the Proposed Etiwanda Subtransmission Source Line Route would permanently disturb land identified by the FMMP as Unique Farmland. Based on preliminary engineering (exact pole placement will not be determined until final engineering), installation of new poles, assuming a permanently cleared radius of 25 feet around each pole, would permanently disturb approximately 1.54 acres of Unique Farmland. Additionally, construction of 0.85 mile of new 14-foot wide access roads with two feet of shoulder on each side would permanently disturb an additional 1.85 acres of Unique Farmland. The total area permanently disturbed would be 3.39 acres of Unique Farmland.

Forest Land Classification

Forest land is defined by the California Public Resources Code (PRC) Section 12220(g) as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Timberland is land, other than land owned by the federal government and land designated by the State Board of Forestry as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products (Redwood City, 2010). There is currently no forest land or timberland located within or near the Proposed Project.

4.2.2 Regulatory Setting

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also known as the Williamson Act, is designed to preserve agricultural and open space lands by discouraging their premature and unnecessary conversion to urban uses (CDC, 2007b). The Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their

land to agricultural and compatible open-space uses. In return, the landowners are given tax incentives by ensuring that land would be assessed for its agricultural productivity rather than its highest and best use. Contracts run for a period of 10 years; however, some jurisdictions exercise the option of making them long term, up to 20 years. Contracts are automatically renewed unless the landowner files for non-renewal or petitions for cancellation. The contracts can be divided into the following categories: Prime Agricultural Land, Non-Prime Agricultural Land, Open Space Easement, Built Up Land, and Agricultural Land in Non-Renewal.

Section 51238 of the Williamson Act indicates that, unless local organizations declare otherwise, the erection, construction, alteration, or maintenance of gas, electric, water, or communication facilities are compatible with Williamson Act contracts.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project because it authorizes the construction and maintenance of investor-owned public utility facilities. Although local jurisdictions are preempted from local land use and zoning regulations, and discretionary permitting requirements, General Order Number 131-D, Section III.C directs the utility to "communicate with, and obtain the input of, local authorities regarding land-use matters and obtain any non-discretionary local permits." As part of its environmental review process, SCE considered local and state land use plans and policies, and local land use priorities and concerns.

California Farmland Mapping and Monitoring Program

The CDC, under the Division of Land Resource Protection, has established the FMMP which monitors the conversion of the State's farmland to and from agricultural use. The FMMP map series identifies eight classifications and uses a minimum mapping unit size of 10 acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The FMMP maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years (CDC, 2007a). Important farmlands are divided into the following four classifications based on their suitability for agriculture (CDC, 2010):

1. **Prime Farmland.** Land with the best combination of physical and chemical characteristics able to sustain long-term production of agricultural crops. This land has produced irrigated crops at some time within the four years prior to the mapping date

2. **Farmland of Statewide Importance.** Land that meets the criteria for Prime Farmland but with minor shortcomings such as greater slopes or lesser soil moisture capacity

3. **Unique Farmland.** Land with even lesser quality soils and produces the State's leading agricultural crops. This land is usually irrigated but also includes non-irrigated orchards and vineyards

4. **Farmland of Local Importance.** Land that is important to the local agricultural economy as determined by each jurisdiction and a local advisory committee

County of San Bernardino General Plan

Policies contained in the San Bernardino County General Plan address countywide issues that are general in nature and may apply to numerous locations and land use designations within the County. The Land Use Element, Conservation Element, Open Space Element and Economic Development Element govern the land use and agricultural resources of the County.

The Land Use Element functions as a guide to planners, the general public, and decision makers for the ultimate pattern of development for San Bernardino County. The Conservation Element provides direction regarding the conservation, development, and utilization of the County's natural resources. The Open Space Element provides a reference to guide the protection and preservation of open space, recreation, and scenic areas, while accommodating future growth within the County. The Economic Development Element is intended to guide the County in expanding the local economy.

The following policies, contained within the Conservation, Open Space and Economic Development elements of San Bernardino County's General Plan are applicable to agricultural resources:

Conservation Element (CO)

CO 6.1 Protect prime agricultural lands from the adverse effects of urban encroachment, particularly increased erosion and sedimentation, trespass, and non-agricultural land development.

CO 6.2 The County will allow the development of areas of prime agriculture lands supporting commercially valuable agriculture to urban intensity when it can be demonstrated that there is no long-term viability of the agricultural uses due to encroaching urbanization, creating incompatible land uses in close proximity to each other.

CO 6.3 Preservation of prime and statewide important soils types, as well as areas exhibiting viable agricultural operations, will be considered as an integral portion of the Open Space element when reviewing development proposals.

CO 6.4 Provide and maintain a viable and diverse agricultural industry in San Bernardino County.

Open Space Element (OS)

OS 1.1 Provide for uses that respect open space values by utilizing appropriate land use categories on the Land Use maps. Land use zoning districts appropriate for various types of open space preservation include: Agriculture (AG), Floodway (FW), Resource Conservation (RC), and Open Space (OS).

OS 1.2 Support retention of open space lands by requiring large lot sizes, high percentage of open space or agricultural uses, and clustering within the AG, FW, RC, and OS Land Use Zoning Districts.

Economic Development Element (ED)

ED 6.1 Retain areas of the County that have long-term agricultural potential to contribute value to the overall economy.

ED 6.2 Encourage residential and commercial land use planning that respects agricultural production and encourages its continuation.

Chapter 82.03 of the San Bernardino County Code 2007 Development Code provides the regulatory framework for agricultural preserves (County of San Bernardino, 2007a). This Chapter lists the land uses that may be allowed within the agricultural and resource management land use zoning districts established by the General Plan (County of San Bernardino, 2007b) and listed in Chapter 82.01 (Land Use Plan and Land Use Zoning Districts, and Overlays), determines the type of planning permit/approval required for each use, and provides basic standards for site layout and building size.

City of Fontana

There are no applicable policies in the City of Fontana General Plan related to agricultural resources.

City of Rialto

The Cultural and Historical Resources section of the Rialto General Plan provides direction for protecting agricultural resources in Rialto.

Policy 7-1.1 Protect the architectural, historical, agricultural, open space, environmental, and archaeological resources in Rialto.

City of Rancho Cucamonga

The Land Use Element ensures that land uses throughout the City of Rancho Cucamonga are located in proximity to each other to achieve economic efficiencies while minimizing incompatibilities. The Resource Conservation Element focuses on preserving, protecting, conserving, reusing, replenishing, and efficiently using Rancho Cucamonga's limited natural resources that include water, open space, sensitive habitat, agricultural lands, and flora and fauna.

The following policies, contained within the Land Use and Resource Conservation elements of the City of Rancho Cucamonga General Plan, are applicable to agricultural resources:

Land Use (LU)

LU-6.3 Protect and preserve historical sites that reflect the area's long-standing agricultural heritage.

LU-17.1 Allow for use of the Williamson Act.

LU-18.4 Continue to rebuild agricultural landscapes.

Resource Conservation (RC)

RC-1.4 Evaluate the conservation of economically viable agriculture on lands that are designated by the State as important farmland.

4.2.3 Significance Criteria

The significance criteria for assessing the impacts to agricultural and forest resources were obtained from CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- 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
- Conflict with existing zoning for agricultural use, or a Williamson Act contract
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))
- Result in the loss of forest land or conversion of forest land to non-forest use
- 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

4.2.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

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

The Proposed Project would not be located on land that is currently zoned for agricultural use or under a Williamson Act contract. Therefore, no impacts related to existing agricultural zoning would occur. The Proposed Project would not remove land from Williamson Act status and there would be no impact related to Williamson Act lands.

For additional information regarding existing zoning, please refer to Section 4.10, Land Use and Planning.

Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The Proposed Project would not be located on land that is designated or zoned for forest land or timberland. Therefore, no impacts related to existing forest/timberland zoning would occur.

For additional information regarding existing zoning, please refer to Section 4.10, Land Use and Planning.

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

No forest land is located within or adjacent to the Proposed Project area. Therefore, construction and operation of the Proposed Project would not result in the loss or conversion of forest land to non-forest use.

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?

The Proposed Project is required to ensure the availability of safe and reliable electric service to meet customer electrical demand in the Electrical Needs Area. Existing facilities would not meet forecasted, long-term electrical demand within the Electrical Needs Area. The Proposed Project would not induce growth, but instead is designed to respond to existing growth and demand trends, and therefore, would not be expected to substantially induce or exacerbate conversion of farmland to non-agricultural uses or forest land to non-forest uses.

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?

A 0.90 mile portion of the Proposed Etiwanda Subtransmission Source Line Route crosses land designated as Unique Farmland, resulting in the temporary disturbance of approximately 4.45 acres and the permanent conversion of approximately 3.39 acres of Unique Farmland to non agricultural use. Disturbance in this area would result from construction of new poles and access roads along the Etiwanda Subtransmission Source Line Route alignment.

The area currently mapped as Unique Farmland within the Proposed Project currently contains degraded and abandoned grape vineyards surrounded by urban development. As described in Section 4.4, Biological Resources, vineyards that occur within the Proposed Project are abandoned and are only occurring in their present state due to the heavy rain season of 2009-2010. This small patch of vineyards is currently bisected by the 210 Freeway and bordered to the west and south by residential development.

While the California Resources Agency has mapped this area as Unique Farmland, the City of Fontana's General Plan designates this area as "Regional Mixed Use" and "Residential Planned Community", and as being located within the Westgate Specific Plan. According to the Westgate Specific Plan (City of Fontana, 2003b), the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would have a specific plan land use designation of "P/UC: Public Utility Corridor." The P/UC specific plan land use designation identifies locations in the planning areas which contain rights-of-way for utilities such as SCE transmission lines and easements held by other quasi-public agencies (see Section 4.10, Land Use and Planning). Thus, the Proposed Project within this area is compatible with the City of Fontana's General Plan and the Westgate Specific Plan.

Furthermore, the City of Fontana has previously analyzed the impact related to the conversion of Unique Farmland with the General Plan area, including that which occurs within the Proposed Project. The General Plan Update Environmental Impact Report (EIR) (City of Fontana, 2003c) (State Clearinghouse Number 2003031083) prepared by the City of Fontana considered the conversion of 610 acres of Unique Farmland within the General Plan area, of which 3.39 acres would be converted as part of the Proposed Project. The General Plan Update EIR concluded that conversion of this mapped farmland would result in a significant and unavoidable impact. As a result, the City of Fontana adopted a Statement of Overriding Considerations for the loss of agricultural land.

Public Resources Code Section 21083.3 and CEQA Guidelines 15183 limits CEQA review of certain projects to environmental effects that are "peculiar" to the parcel or to the project and which were not addressed as significant effects in a prior EIR, or which new information shows will be more significant than described in the prior EIR. The

Proposed Project is a qualified project pursuant to Section 21083.3(a) which provides in pertinent part:

(a) If a parcel has been zoned to accommodate a particular density of development or has been designated in a community plan to accommodate a particular density of development and an environmental impact report was certified for that zoning or planning action, the application of this division to the approval of any subdivision map or other project that is consistent with the zoning or community plan shall be limited to effects upon the environment which are peculiar to the parcel or to the project and which were not addressed as significant effects in the prior environmental impact report, or which substantial new information shows will be more significant than described in the prior environmental impact report.

(b) If a development project is consistent with the general plan of a local agency and an environmental impact report was certified with respect to that general plan, the application of this division to the approval of that development project shall be limited to effects on the environment which are peculiar to the parcel or to the project and which were not addressed as significant effects in the prior environmental impact report, or which substantial new information shows will be more significant than described in the prior environmental impact report.

As described above, the Proposed Project was zoned with the adoption of the City of Fontana General Plan and the Westgate Specific Plan and therefore accommodates the Proposed Project. An EIR was prepared for the certified General Plan, which incorporated the land use designation for the Proposed Project, integrated the concepts contained in the Westgate Specific Plan, and adequately and completely evaluated the significance of the conversion of the 3.39 acres of Unique Farmland occurring within the Proposed Project. Accordingly, the project is a qualified project within the meaning of Section 21083.3, both under subsection (a) and (b), and CEQA Guidelines 15183. Therefore, it is concluded that the Proposed Project has no impact with respect to the conversion of 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.

4.2.5 Alternative Substation Site

Like the Proposed Substation Site, the Alternative Substation Site is not being used for agricultural activities and is not designated or zoned for agricultural use. Construction and operation of the Alternative Substation Site would not affect any Williamson Act lands, as the Alternative Substation Site is not located on land designated for agricultural use. As a result, the impacts to agriculture and forestry resources would be the same as those for the Proposed Substation Site. Impacts would be less than significant.

4.2.6 Alternative Subtransmission Source Line Routes

The Alternative Alder Subtransmission Source Line Route B would not cross lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

or any Williamson Act Lands. However, since the Alternative Subtransmission Source Line Routes include the Proposed Etiwanda Subtransmission Source Line Route, which would cross and permanently disturb Unique Farmland, impacts to agricultural resources for the Alternative Subtransmission Source Line Routes would be similar to those for the Proposed Project (permanently disturb 3.39 acres of Unique Farmland) and therefore it can be concluded that the Alternative Subtransmission Source Line Routes would have no impact as described above for the Proposed Project.

4.2.7 References

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4.3 Air Quality

This section describes the air quality in the area of the Proposed Project. The potential impacts of the Proposed Project and alternatives are also discussed.

4.3.1 Environmental Setting

The Proposed Project lies within the South Coast Air Basin (SCAB), a region that is comprised of portions of Los Angeles, San Bernardino, and Riverside Counties, and all of Orange County. The air above the SCAB often exhibits weak vertical and horizontal dispersion due to persistent temperature inversions (a warm air mass moves above a cooler air mass, limiting mixing of the two masses), and the air movement is restricted by the presence of nearby mountain ranges.

The Proposed Project is in a region under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD adopts and enforces rules and regulations to achieve State and Federal ambient air quality standards and enforces applicable State and Federal laws.

The Clean Air Act of 1970 required the U.S. Environmental Protection Agency (EPA) to adopt ambient air quality standards. The National Ambient Air Quality Standards (NAAQS) are the maximum levels, given a margin of safety, of pollution that is considered safe for public health and welfare. Air quality standards developed by individual states must be at least as stringent as those set forth by the EPA. The California Air Resources Board (CARB) has developed California Ambient Air Quality Standards (CAAQS).

Areas that fail to meet Federal NAAQS (and CAAQS in California) are identified as nonattainment areas. When an area is designated as nonattainment, regional air quality management agencies are required to develop detailed plans that will lower the emissions of pollutants in order to reach attainment, and sources of pollutants are typically subject to more stringent air permitting requirements than similar sources in attainment areas.

Presently, the ambient air in the area of the Proposed Project is classified by both EPA and CARB as nonattainment for ozone (O_3), suspended particulate matter measuring less than 10 microns (PM_{10}), and suspended particulate matter measuring less than 2.5 microns ($PM_{2.5}$), and classified by the CARB as nonattainment for nitrogen dioxide (NO_2) (CARB, 2010a). However, the SCAQMD is seeking redesignation by the EPA of the SCAB to attainment for PM_{10}. The Los Angeles County portion of the SCAB is also designated by the CARB as nonattainment for lead; however, since the Proposed Project would be located in San Bernardino County, it would be in an area designated as attainment for lead. The attainment status of each CAAQS and NAAQS pollutant is shown in Table 4.3-1, Federal and California Ambient Air Quality Standards and South Coast Air Basin Attainment Status.

Table 4.3-1 Federal and California Ambient Air Quality Standards and South Coast Air Basin Attainment Status

Pollutant	Federal Primary Standard Averaging Time and Concentration	Designation/ Classification	State Standard Averaging Time and Concentration	Designation/ Classification
Ozone (O_3)	8-hr average 0.075 ppm (147 µg/m^3)	Nonattainment	8-hr average 0.070 ppm (137 µg/m^3)	Nonattainment
	None		1-hr average 0.09 ppm (180 µg/m^3)	
Respirable Particulate Matter (PM_{10})	None	Nonattainment[1]	Annual Arithmetic Mean 20 µg/m^3	Nonattainment
	24-hr average 150 µg/m^3		24-hr average 50 µg/m^3	
Fine Particulate Matter($PM_{2.5}$)	Annual Arithmetic Mean 15.0 µg/m^3	Nonattainment	Annual Arithmetic Mean 12 µg/m^3	Nonattainment
	24-hr average 35 µg/m^3		None	
Carbon Monoxide (CO)	8-hr average 9 ppm (10 mg/m^3)	Attainment	8-hr average 9.0 ppm (10 mg/m^3)	Attainment
	1-hr average 35 ppm (40 mg/m^3)		1-hr average 20 ppm (23 mg/m^3)	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean 0.053 ppm (100 µg/m^3)	Attainment	Annual Arithmetic Mean 0.030 ppm (57 µg/m^3)	Nonattainment
	0.100 ppm (188 µg/m^3)		1-hr average 0.18 ppm (339 µg/m^3)	
Sulfur Dioxide (SO_2)	None	Attainment	24-hr average 0.04 ppm (105 µg/m^3)	Attainment
	1-hr average 75 ppb (197 µg/m^3)		1-hr average 0.25 ppm (655 µg/m^3)	

Table 4.3-1 Federal and California Ambient Air Quality Standards and South Coast Air Basin Attainment Status

Pollutant	Federal Primary Standard Averaging Time and Concentration	Designation/ Classification	State Standard Averaging Time and Concentration	Designation/ Classification
Lead	Rolling 3-month average 0.15 µg/m^3	Attainment	None	Nonattainment[2]
	Calendar quarter average 1.5 µg/m^3		None	
	None		30-day average 1.5 µg/m^3	
Hydrogen Sulfide	None	--	1-hr average 0.03 ppm (42 µg/m^3)	Attainment/ Unclassified
Sulfates	None	--	24-hr average 25 µg/m^3	Attainment
Visibility Reducing Particles	None	--	See note (3) below	Attainment/ Unclassified
Vinyl Chloride	None	--	24-hr average 0.01 ppm (26 µg/m^3)	Not reported

Source: CARB, 2010a; CARB, 2010b
µg/m^3 = microgram per cubic meter, mg/m^3 = milligram per cubic meter, ppm = parts per million
ppb = parts per billion
Notes:
[1] The SCAQMD is seeking redesignation to attainment for the Federal PM_{10} standard.
[2] Nonattainment designation for lead only applies to the Los Angeles County portion of the SCAB
[3] State criterion for nonattainment of visibility-reducing particles is the amount of particles present to produce an extinction coefficient of 0.23 per kilometer when relative humidity is less than 70 percent.

The SCAQMD operates several monitoring stations within the SCAB to monitor levels of criteria pollutants. The most recent available data are from monitoring during 2008. The air quality monitoring station closest to the Proposed Project is the Fontana station, where O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, Sulfur Dioxide (SO_2), and sulfate are monitored. The PM_{10} NAAQS, the sulfate CAAQS, and the CO, NO_2, and SO_2 NAAQS and CAAQS were not exceeded at this station from 2006 through 2008, but the following exceedances of the PM_{10} CAAQS, the $PM_{2.5}$ and O_3 NAAQS, and CAAQS were measured (SCAQMD, 2010):

- The 24-hour PM_{10} CAAQS was exceeded on 24 days during 2006, 33 days during 2007, and 14 days during 2008

- The annual average PM_{10} CAAQS was exceeded during 2006, 2007, and 2008
- The 24-hour $PM_{2.5}$ NAAQS was exceeded on eight days during 2006, 10 days during 2007, and six days during 2008
- The annual average $PM_{2.5}$ NAAQS and CAAQS were during 2006, 2007, and 2008
- The 8-hour O_3 NAAQS was exceeded on 29 days during 2006, 43 days during 2007, and 58 days during 2008
- The 8-hour O_3 CAAQS was exceeded on 49 days during 2006, 60 days during 2007, and 82 days during 2008
- The 1-hour O_3 CAAQS was exceeded on 47 days during 2006, 40 days during 2007, and 55 days during 2008

The air quality monitoring station closest to the Proposed Project where lead is monitored is the San Bernardino station. The lead NAAQS and CAAQS were not exceeded at this station from 2006 through 2008.

4.3.2 Regulatory Setting

Federal Clean Air Act and Amendments

The Federal Clean Air Act provides the EPA with the authority to set ambient air quality standards and grant a waiver for California to set stricter standards. Other states have the choice of adopting Federal standards or the more stringent CAAQS. The EPA also requires a State Implementation Plan that outlines the state regulations and programs that will be implemented to demonstrate how a state will attain or maintain the ambient air quality standards within a given period of time. Through the Clean Air Act and Amendments, the EPA also implements on-road and off-road engine emission reduction programs that periodically phase in engine efficiency requirements and/or ancillary engine or exhaust equipment that result in cleaner emissions from on-road and off-road equipment.

California Clean Air Act

CARB is given the authority through the California Clean Air Act to develop ambient air quality standards for the state. CARB is also responsible for setting vehicle emission standards and fuel specifications, and for regulating emissions from other sources such as consumer products and certain types of mobile equipment (e.g., lawn and garden equipment, industrial forklifts). CARB also implements the Off-road Mobile Sources Emission Reduction Program to reduce emissions from off-road equipment, and the Portable Equipment Registration Program, a program that evaluates portable equipment and provides a registry for qualifying equipment to be exempt from obtaining separate air quality permits to operate within each individual air basin.

South Coast Air Quality Management District

In addition to supporting CARB and EPA air quality programs, the SCAQMD also develops plans and implements control measures for regulated pollutants in the SCAB, primarily affecting stationary sources such as factories and plants. The SCAQMD is required to update plans for improving air quality in the SCAB as needed or every three years. The 2007 Air Quality Management Plan (AQMP) (SCAQMD, 2007) is the latest version designed to satisfy requirements of both Federal and State clean air laws. The plan outlines policies and practices intended to achieve attainment levels for criteria pollutants and avoid future levels that exceed applicable standards.

South Coast Air Quality Management District Rule 403-Fugitive Dust

This rule prohibits construction activities from generating visible dust in the atmosphere beyond the property line or higher than 90 feet. The rule requires construction activities to use the best available control measures specified in the rule to minimize fugitive dust emissions. Measures may include stabilizing disturbed areas with water, chemical stabilizer, or by covering disturbed areas with a tarp or other suitable cover; materials transported off site must be covered or stabilized with at least 6 inches of freeboard space from the top of the container; and traffic speeds on unpaved roads must be limited to 15 miles per hour. These actions are required for all projects within the SCAB capable of generating fugitive dust.

4.3.3 Significance Criteria

The significance criteria for assessing the impacts to air quality come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- 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)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

4.3.4 Impact Analysis

The SCAQMD adopted the CEQA Air Quality Handbook in 1993 (SCAQMD, 1993). The purpose of the handbook is to provide lead agencies, consultants, and project applicants with a framework and uniform methods for preparing air quality evaluations for environmental documents. The handbook recommends specific criteria and threshold

levels for determining whether a proposed project may have a significant adverse air quality impact. The SCAQMD is in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook. While the new handbook is being prepared, the SCAQMD provides supplemental and updated information on its CEQA Handbook webpage (SCAQMD, 2009a). Although these are guidelines only, and their use is not required or mandated by the SCAQMD, they are considered appropriate for evaluating potential air quality impacts from construction and operation of the Proposed Project.

CEQA significance thresholds that have been adopted by the SCAQMD are listed in Table 4.3-2, SCAQMD Air Quality Significance Thresholds. Although ambient air quality standards have not been established for nitrogen oxides or volatile organic compounds, they have air quality significance thresholds because they react in the atmosphere to form ozone.

Table 4.3-2 SCAQMD – South Coast Air Basin, Air Quality Significance Thresholds

Mass Daily Thresholds [1]		
Pollutant	**Construction**	**Operation**
Nitrogen Oxides (NOx)	100 lbs/day	55 lbs/day
Volatile Organic Compounds	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
Sulfur Oxides (SOx)	150 lbs/day	150 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/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 [2]		
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)[3] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	

Table 4.3-2 SCAQMD – South Coast Air Basin, Air Quality Significance Thresholds

$PM_{2.5}$ 24-hour average	10.4 $\mu g/m^3$ (construction)[3] & 2.5 $\mu g/m^3$ (operation)
Sulfate 24-hour average	1 $\mu g/m^3$
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 (state/federal)

Source: SCAQMD, 2009b
lbs/day = pounds per day
≥ = greater than or equal
ppm = parts per million
$\mu g/m^3$ = microgram per cubic meter
Notes:
[1] Source: SCAQMD CEQA Handbook (SCAQMD, 1993).
[2] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[3] Ambient air quality threshold based on SCAQMD Rule 403.

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

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

The AQMP is a blueprint of control measures designed to meet ambient air quality standards. The control measures are developed by compiling a current air pollutant emissions inventory, projecting the emissions inventory to future years, evaluating the impacts of future emissions on ambient air quality through air quality modeling, determining reductions in the projected future emissions needed to attain the standards, and devising control measures that will achieve those emission reductions. The 2007 AQMP (SCAQMD, 2007) demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under Federal law.

Growth projections from local general plans adopted by cities in the district and vehicle-miles-traveled projections developed by the Southern California Association of Governments (SCAG) are some of the inputs used to develop the AQMP. Because construction and operation of the Proposed Project would not result in a population increase, the Proposed Project would not conflict with the growth projections used to develop the 2007 AQMP. Please see Section 6.2, Growth Inducing Impacts, for a discussion of economic and population growth. Construction and operation of the

Proposed Project would not conflict with the implementation of the air quality plan, and there would be no impact.

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

Potential odors associated with construction and operation of the Proposed Project would be limited to vehicle exhaust. Construction and operation of the Proposed Project are unlikely to create objectionable odors that would affect a substantial number of people. There would be no impact.

Construction Impacts

Construction of the Proposed Project would result in less than significant impacts for the following CEQA criterion:

Would the project expose sensitive receptors to substantial pollutant concentrations?

Table 4.3-4, Construction Localized Significance Threshold Analysis, shows that emissions during construction of the Proposed Project will not cause or contribute to a localized exceedance of an air quality standard. Since the NAAQS and CAAQS are the levels, given a margin of safety, that are considered safe for public health, construction of the Proposed Project would not expose receptors, including sensitive receptors, to substantial pollutant concentrations. Impacts would be less than significant.

Construction of the Proposed Project would result in potentially significant impacts for the following CEQA criterion:

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

Peak daily emissions during construction, including both on-site and off-site sources, were calculated for comparison with the SCAQMD's mass daily emissions CEQA significance thresholds (see Table 4.3-2, SCAQMD Air Quality Significance Thresholds) to evaluate whether construction activities could cause or contribute to regional violations of air quality standards. The following steps were used to estimate peak daily emissions during construction:

- Daily emissions during each of the construction phases in Table 3.6, Construction Equipment and Workforce Estimates, were calculated by applying pollutant emission factors from the SCAQMD CEQA Handbook webpage (SCAQMD, 2009a) to construction data in Chapter 3, Project Description (please see Appendix C, Air Quality Calculations, for details).

- The maximum daily emissions that may occur during construction of each component of the Proposed Project (Proposed Substation, modifications to the Alder and Etiwanda Substations, Proposed Subtransmission Source Line Routes, Proposed Telecommunication Facilities, Proposed Distribution Getaways and the Proposed relocation of existing facilities) were then estimated as follows:

- Daily emissions during the construction phases for each component of the Proposed Project that may overlap were added together to estimate daily emissions during overlapping construction phases.

- The highest daily emissions among the overlapping and non-overlapping construction phases for each component of the Proposed Project were then determined.

- Construction of the primary components of the Proposed Project may all occur at the same time. Therefore, peak daily emissions during simultaneous construction of the Proposed Project components were estimated by adding together the maximum daily emissions during construction of the individual components estimated in the previous step.

The highest daily emissions during construction of each component of the Proposed Project and peak daily emissions during construction of the entire Proposed Project, assuming that the highest daily emissions during construction of the primary components would all occur at the same time, are listed in Table 4.3-3, Peak Daily Construction Emissions. Table 4.3-3, Peak Daily Construction Emissions, also compares peak daily construction emissions with the SCAQMD's mass daily emissions CEQA significance thresholds. The estimates are based on a worst-case construction schedule scenario. The emissions would be temporary.

Table 4.3-3 Peak Daily Construction Emissions

Proposed Project Component	**Maximum Daily Emissions (pounds/day)[1]**					
	Volatile Organic Compounds	**Carbon Monoxide**	**Nitrogen Oxides**	**Sulfur Oxides**	**Particulate Matter less than 10 microns**	**Particulate Matter less than 2.5 microns**
Falcon Ridge Substation	7.3	34.8	62.9	0.1	52.6	11.2
Alder Substation Modifications	3.7	23.6	17.6	<0.1	2.3	1.0
Etiwanda Substation Modifications	2.0	12.6	15.5	<0.1	1.3	0.9
Subtransmission Source Lines	15.3	79.1	114.4	0.2	126.4	16.4
Telecommunication Facilities	3.6	19.3	33.4	0.1	40.5	5.0
Distribution Getaways	6.4	30.4	60.2	0.1	32.3	5.5
Existing Facilities Relocation	3.7	23.8	20.4	<0.1	3.6	1.0

Table 4.3-3 Peak Daily Construction Emissions

Proposed Project Component	Maximum Daily Emissions (pounds/day)[1]					
	Volatile Organic Compounds	Carbon Monoxide	Nitrogen Oxides	Sulfur Oxides	Particulate Matter less than 10 microns	Particulate Matter less than 2.5 microns
Total[2]	**42.0**	**223.6**	**324.4**	**0.6**	**259.0**	**41.2**
SCAQMD CEQA Significance Threshold	75	550	100	150	150	55
Significant?	No	No	Yes	No	Yes	No

Notes:

[1] Maximum daily emissions are the highest daily emissions that would occur during construction of each Proposed Project component, based on the potential overlap of construction phases.

[2] Totals may not match sums of individual values because of rounding.

The estimated peak daily emissions of nitrogen oxides (NOx) and PM_{10} during construction activities exceed corresponding SCAQMD mass daily significance thresholds, and emissions of these pollutants during construction may contribute to regional air quality violations. Estimated peak daily NOx and PM_{10} emissions do not exceed the significance thresholds for any individual construction phase. However, given the possible overlap of construction phases during construction of the Proposed Project components and the assumption that the highest daily emissions during construction of the components would all occur at the same time, the estimated peak daily emissions would exceed the significance thresholds. NOx would be emitted from on-site construction equipment (62 percent) and from off-site motor vehicles (38 percent). The majority of PM10 (74 percent) would be emitted as fugitive dust from vehicle travel on unpaved roads and surfaces.

Construction emissions would be reduced by complying with CARB Off-Road Idling Policy, which restricts most occurrences of off-road equipment engine idling not more than five consecutive minutes as required by California Code of Regulations Title 13, Section 2449 (d)(3) for diesel engines. Additionally, Southern California Edison (SCE) will comply with California Code of Regulations Title 13, Section 2423.

The SCAQMD has developed and implemented Rule 403, Fugitive Dust, to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. SCE would develop an air quality plan prior the start of construction, pursuant to Rule 403, that would include details of project-specific measures to be implemented during construction of the Proposed Project to reduce impacts to air quality. Prior to construction, this plan would be submitted for approval to the SCAQMD and implemented during construction.

Although these measures would reduce impacts, NOx and PM_{10} emissions would still exceed the significance thresholds. Reducing these emissions to less than significant levels would require significant alterations to the Proposed Project construction schedule to reduce or eliminate overlap between construction phases and between construction of the individual Proposed Project components. Altering the construction schedule to the extent required would not allow SCE to complete construction of the Proposed Project within the timeframe required to meet the goals of the project. Thus, impacts to air quality during construction of the Proposed Project are expected to remain significant.

Localized Exceedances

The SCAQMD (2008) has developed look-up tables that can be used to evaluate the potential for emissions during construction to cause localized exceedances of the ambient air quality CEQA significance thresholds as listed in Table 4.3-2, SCAQMD Air Quality Significance Thresholds. This localized significance thresholds analysis consists of comparing maximum daily on-site CO, NOx, PM_{10}, and $PM_{2.5}$ emissions at individual locations with maximum allowable emissions in the look-up tables. The maximum allowable emissions in the tables depend on the location within the SCAB, the size (disturbed area) of the construction activities, and the distance from the construction site boundary to the nearest receptor. Receptors for the analysis include residences for PM_{10} and $PM_{2.5}$ and either residences or commercial locations for CO and NOx. Table 4.3-4, Construction Localized Significance Threshold Analysis, compares maximum daily on-site emissions for construction of each Proposed Project component with the maximum allowable emissions from the SCAQMD's look-up tables (please see Appendix C, Air Quality Calculations, for details). As shown in Table 4.3-4, Construction Localized Significance Threshold Analysis, maximum daily on-site construction emissions would not exceed the maximum allowable emissions for any pollutant. Therefore, construction of the Proposed Project would not cause or contribute to a localized exceedance of an air quality standard.

Table 4.3-4 Construction Localized Significance Threshold Analysis

Proposed Project Component	**Carbon Monoxide**	**Nitrogen Oxides**	**Particulate Matter less than 10 microns**	**Particulate Matter less than 2.5 microns**
Substation Construction Emissions (pounds/day)	20	36	50	10
Maximum Allowable Emissions (pounds/day)[1]	1,227	186	63	19
Exceedance?	No	No	No	No
Alder Substation Modification Emissions (pounds/day)	17	15	1	1

Table 4.3-4 Construction Localized Significance Threshold Analysis

Proposed Project Component	Carbon Monoxide	Nitrogen Oxides	Particulate Matter less than 10 microns	Particulate Matter less than 2.5 microns
Maximum Allowable Emissions (pounds/day)[2]	7,264	371	196	98
Exceedance?	No	No	No	No
Etiwanda Substation Modification Emissions (pounds/day)	10	12	1	1
Maximum Allowable Emissions (pounds/day)[2]	7,100	368	196	98
Exceedance?	No	No	No	No
Subtransmission Source Line Construction Emissions (pounds/day)	9	22	2	1
Maximum Allowable Emissions (pounds/day)[2]	667	118	4	3
Exceedance?	No	No	No	No
Telecommunications Construction Emissions (pounds/day)	10	26	2	1
Maximum Allowable Emissions (pounds/day)[2]	667	118	4	3
Exceedance?	No	No	No	No
Distribution Getaways Construction Emissions (pounds/day)	10	17	1	1
Maximum Allowable Emissions (pounds/day)[2]	3,009	244	76	25
Exceedance?	No	No	No	No
Existing Facilities Relocation Construction Emissions (pounds/day)	3	7	1	<0.5
Maximum Allowable Emissions (pounds/day)[2]	667	118	4	3

Table 4.3-4 Construction Localized Significance Threshold Analysis

Proposed Project Component	Carbon Monoxide	Nitrogen Oxides	Particulate Matter less than 10 microns	Particulate Matter less than 2.5 microns
Exceedance?	No	No	No	No

Notes:
[1] Maximum allowable emissions based on 2-acre site and linear interpolation to actual receptor distance using values for Central San Bernardino Valley source/receptor area.
[2] Maximum allowable emissions based on 1-acre site and linear interpolation to actual receptor distance using values for Central San Bernardino Valley source/receptor area.

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

The SCAB is classified as nonattainment for ozone, PM10 and PM2.5. Table 4.3-3, Peak Daily Construction Emissions, shows that peak daily emissions of ozone precursor NOx exceed the SCAQMD's mass emissions CEQA significance thresholds. Therefore, construction of the Proposed Project could result in a cumulatively considerable net increase of ozone precursors. Table 4.3-3, Peak Daily Construction Emissions, also shows that peak daily PM_{10} emissions exceed the SCAQMD's mass emissions CEQA significance thresholds. Therefore, construction of the Proposed Project could also result in a cumulatively considerable net increase in PM_{10} emissions. Compliance with California Code of Regulations Title 13, Section 2423 would reduce NOx and PM10 construction emissions, but reducing these emissions to less than significant levels would require significant alterations to the Proposed Project construction schedule to reduce or eliminate overlap between construction phases and between construction of the individual Proposed Project components. Altering the construction schedule to the extent required would not allow SCE to complete construction of the Proposed Project within the timeframe required to meet the goals of the project. Thus, the cumulative impact from these emissions is expected to remain significant.

Operation Impacts

Operation of the Proposed Project would result in less than significant impacts for the following CEQA criterion:

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

Emissions during operations would be associated with routine maintenance performed on a monthly basis by small crews traveling in crew trucks. Peak daily emissions during operation were calculated for comparison with the SCAQMD's mass daily emissions CEQA significance thresholds (see Table 4.3-2, SCAQMD Air Quality Significance Thresholds) to evaluate whether the operational activities could cause or contribute to

regional violations of air quality standards. Table 4.3-5, Peak Daily Operational Emissions, compares peak daily operational emissions with the SCAQMD's mass daily emissions CEQA significance thresholds. The calculations applied pollutant emission factors from the SCAQMD CEQA Handbook webpage (SCAQMD, 2009a) to anticipated motor vehicle usage during operation (please see Appendix C, Air Quality Calculations, for details). The estimated peak daily emissions during operation of the Proposed Project are much less than the corresponding SCAQMD mass daily significance thresholds, and emissions of these pollutants during operation would not contribute to regional air quality violations. Additionally, since these emissions would be from crew trucks traveling to and from the Proposed Substation or the Proposed Subtransmission Source Line Routes, they would not occur at a single location and would not cause or contribute to a localized exceedance of an air quality standard. Impacts would be less than significant.

Table 4.3-5 Peak Daily Operational Emissions

Emission Source	**Maximum Daily Emissions (pounds/day)**					
	Volatile Organic Compounds	**Carbon Monoxide**	**Nitrogen Oxides**	**Sulfur Oxides**	**Particulate Matter less than 10 microns**	**Particulate Matter less than 2.5 microns**
Motor Vehicle Exhaust	0.1	0.9	0.1	< 0.05	< 0.05	< 0.05
Particulate Matter from Paved and Unpaved Roads	--	--	--	--	5.3	0.5
Total[1]	**0.1**	**0.9**	**0.1**	**< 0.05**	**5.5**	**0.5**
SCAQMD CEQA Significance Threshold	55	550	55	150	150	55
Significant?	No	No	No	No	No	No

Note:
[1] Totals may not match sums of individual values because of rounding.

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

Table 4.3-5, Peak Daily Operational Emissions, shows that peak daily emissions would not exceed the SCAQMD's mass emissions CEQA significance thresholds. Therefore, operation of the Proposed Project would not result in a cumulatively considerable increase of nonattainment criteria pollutants. Impacts would be less than significant.

Would the project expose sensitive receptors to substantial pollutant concentrations?

Table, 4.3-5, Peak Daily Operational Emissions, shows that peak daily emissions during operation of the Proposed Project would be minimal. Furthermore, since these emissions would be from crew trucks traveling to and from the Proposed Substation or the Proposed Subtransmission Source Line Routes, they would not occur at a single location and would not cause or contribute to a localized exceedance of an air quality standard. Since the NAAQS and CAAQS are the levels, given a margin of safety, that are considered safe for public health, operation of the Proposed Project would not expose receptors, including sensitive receptors, to substantial pollutant concentrations. Impacts would be less than significant.

4.3.5 Alternative Substation Site

The Alternative Substation Site would also be located within an area under the jurisdiction of the SCAQMD, and its construction and operation would be similar in scope to that of the Proposed Substation Site. Construction and operation of the Alternative Substation Site would have similar impacts as the Proposed Substation Site. Construction impacts would be potentially significant, and operational impacts would be less than significant.

4.3.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes would also be located within an area under the jurisdiction of the SCAQMD, and their construction and operation would be similar in scope to that of the Proposed Subtransmission Source Line Routes. Construction and operation of the Alternative Subtransmission Source Line Routes would have similar impacts as the Proposed Subtransmission Source Line Routes. Construction impacts would be potentially significant, and operational impacts would be less than significant.

4.3.7 References

California Air Resources Board (CARB). 2010a. Area Designation Maps/State and National. [online] http://www.arb.ca.gov/desig/adm/adm.htm [cited March 2010].

CARB. 2010b. Ambient Air Quality Standards. [online] http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, August 2010 [cited august 2010].

South Coast Air Quality Management District (SCAQMD). 1993. CEQA Air Quality Handbook, November 1993.

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SCAQMD. 2010. Historical Data by Year. [online] http://www.aqmd.gov/smog/historicaldata.htm [cited January 2010].

4.4 Biological Resources

This section describes existing conditions and the potential impacts to biological resources that may result from construction and operation of the Proposed Project.

4.4.1 Overview

Potential impacts and Applicant Proposed Measures (APMs) are discussed in Sections 4.4.6 and 4.4.7, respectively. As discussed below, construction and operation of the Proposed Project would result in less than significant impacts to biological resources with implementation of the APMs.

4.4.2 Methodology

At the request of SCE, BonTerra Consulting conducted a biological resources assessment for the Proposed Project (Figures 4.4-1 and 4.4-2). The survey area for the Proposed Project (Figure 4.4-3) consists of the following:

- Substation sites (a portion of the Preferred Substation site and a portion of the Alternative Substation site),
- a 50-foot buffer on either side of subtransmission source line routes (the Preferred Subtransmission Source Line Route and the Alternative Subtransmission Source Line Route),
- a 50-foot buffer on either side of the Proposed Telecommunications Route (which overlaps the Preferred Subtransmission Source Line Route), and
- the Etiwanda Substation.

Literature Review

This biological resources section is based on background data review and field reconnaissance surveys. Prior to field surveys, a literature review was performed to identify special status plants, wildlife, and habitats known to occur in the vicinity of the Project. This search included a review of the U.S. Geological Survey's (USGS's) Devore, San Bernardino North, San Bernardino South, Cucamonga Peak, Guasti, Fontana, Cajon, Telegraph Peak, and Silverwood Lake 7.5 minute quadrangles; the California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2010) and the California Department of Fish and Game's (CDFG's) California Natural Diversity Database (CNDDB) (CDFG 2010).

Survey Methods

Biological surveys were conducted to describe and map the vegetation present in the survey area and to evaluate the potential of the habitats to support special status plant and wildlife species. BonTerra Consulting Senior Botanist Sandra Leatherman performed vegetation mapping and general plant surveys on March 9, 2010 and June 21, 2010.

A general wildlife survey was conducted concurrent with vegetation mapping on June 21, 2010, by BonTerra Consulting Senior Biologist Amber Oneal. General wildlife observations were also noted during all focused surveys conducted in spring/summer 2010. Vegetation was mapped in the field on an aerial photograph at a scale of 1 inch equals 200 feet (1″=200′). Nomenclature for vegetation types generally follows that of *The Vegetation Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003), although the most dominant native vegetation type in the survey area is best characterized using Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986).

Plant species were identified in the field or collected for later identification. Plants were identified using taxonomic keys in Hickman (1993), Munz (1974), and Abrams (1923, 1944, 1951), and Abrams and Ferris (1960). Taxonomy follows Hickman (1993) or current scientific journals for scientific and common names. A list of observed plant species is included as Appendix 4.4-1. Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic sign including scat, footprints, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Stebbins (2003) for amphibians and reptiles, American Ornithologists' Union (AOU 2009) for birds, and Baker et al. (2003) for mammals. All species observed were recorded in field notes. A list of observed wildlife species is included as Appendix 4.4-2.

Due to the presence of suitable habitat, protocol level surveys were conducted for Delhi sands flowering-loving fly (*Rhaphiomidas terminates abdominalis*), coastal California gnatcatcher (*Polioptila californica californica*), burrowing owl (*Athene cunicularia*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*). Focused surveys for Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) and special status plant species were conducted in suitable habitat in the survey area. For detailed methodology regarding protocol level and focused surveys for these species, refer to the full Biological Technical Report (BonTerra Consulting 2010).

4.4.3 Environmental Setting

General Biological Resources

The survey area is located on the USGS Devore, Guasti, and Fontana 7.5 minute quadrangle maps (Figure 4.4-2). The survey area is located in the southwestern portion of the County of San Bernardino in the City of Fontana and in unincorporated portions of San Bernardino County northwest of the City (Figure 4.4-3).

Land uses in the immediate vicinity include industrial, commercial, residential, and open space. Existing easements for the SCE powerlines occur within the survey area. One named blueline stream, Etiwanda Creek, and an unnamed blueline stream are located in the survey area; Lytle Creek is located just east of the survey area. Topography in the survey area is relatively flat with elevations ranging from approximately 1,090 to 1,930

feet above mean sea level (msl). Soil types in the survey area include Hanford coarse sandy loam, Psamments and fluvents (frequently flooded), Soboba gravelly loamy sand, Soboba stony loamy sand, Tujunga loamy sand, and Tujunga gravelly loamy sand (Figure 4.4-4).

The survey area is located on the floor of the San Bernardino Valley at the base of the San Gabriel and San Bernardino Mountains; Cajon Canyon separates these two mountain ranges and is located north of the survey area. The Angeles National Forest is located to the northwest of the survey area (west of Cajon Canyon), while the San Bernardino National Forest is located northeast of the survey area (east of Cajon Canyon). Cajon Wash and Lytle Creek are large watercourses that extend from these mountains and merge east of the survey area. Lytle Creek is located approximately 0.5 mile east of Riverside Avenue, the confluence of Lytle Creek and Cajon Wash is located approximately 1.5 miles east of Riverside Avenue and Locust Avenue. Lytle Creek continues to the Santa Ana River, which is approximately 9.5 miles southeast of the survey area. Etiwanda Creek, a blueline stream in the southwestern portion of the survey area, is an unchannelized stream (though bound by development) that extends from Foothill Boulevard south to the 10 Freeway; Etiwanda Creek is channelized both upstream and downstream of the creek segment in the southwestern portion of the survey area.

Vegetation Type Descriptions

Fourteen vegetation types and other areas (i.e., ruderal, disturbed, developed) occur in the survey area (Table 4.4.1; Figure 4.4-5). Vegetation types and other areas mapped in the survey area consist of Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, disturbed mule fat scrub, annual grassland, annual grassland/disturbed Riversidean alluvial fan sage scrub, vineyards, ruderal, ornamental, disturbed, developed, developed/ornamental, developed/ruderal, and flood-control channel. Where vegetation overlaps another type of mapping unit (e.g., a tree canopy over water or roads), the area was mapped according to the uppermost layer of vegetation.

Table 4.4.1 Vegetation Types and Other Areas within Each Portion of the Survey Area

Project Component	Riversidean Alluvial Fan Sage Scrub	Disturbed Riversidean Alluvial Fan Sage Scrub	Disturbed Riversidean Sage Scrub	Disturbed Mule Fat Scrub	Annual Grassland	Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub	Vineyards	Ruderal	Ornamental	Disturbed	Developed	Developed/Ornamental	Developed/Ruderal	Flood-Control Channel
Preferred Substation Site[1]		4.60						0.04						
Alternative Substation Site[1]		7.27						0.33						
Preferred Subtransmission Source Line Route[2]	1.40	10.09	0.30	0.42	8.63	9.98	6.41	72.76	3.73	2.38	19.49	3.18	3.00	0.72
Alternative Subtransmission Source Line Route	1.43	9.05	0.70	0.42	8.63	9.98	6.41	68.66	3.73	2.38	26.71	16.54	2.07	0.72
Etiwanda Substation	13.46			0.61				17.45	0.37	2.69	17.01			

[1] The staging area at this Project component is not included within the survey area. The portion that was excluded from general and focused plant surveys is not a part of the discussion of biological resources.

[2] The Proposed Telecommunications Route overlaps this component of the survey area.

Note: the Alder Substation and six potential staging areas are not included within the survey area.

Riversidean alluvial fan sage scrub occurs along the Preferred and Alternative Subtransmission Source Line Routes and at the Etiwanda Substation. It is dominated by chamise (*Adenostoma fasciculatum*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), and white sage (*Salvia apiana*) with our Lord's candle (*Yucca whipplei*), cane cholla (*Opuntia parryi*), and California sagebrush (*Artemisia californica*).

Disturbed Riversidean alluvial fan sage scrub occurs in all portions of the survey area except the Etiwanda Substation. It has the same dominant species as Riversidean alluvial fan sage scrub but these areas have a higher density of non-native grasses including wild oats (*Avena* spp.), foxtail chess (*Bromus madritensis* ssp. *rubens*), soft chess

(*Bromus hordeaceus*), foxtail fescue (*Vulpia myuros*), Mediterranean grass (*Schismus barbatus*), and goldentop grass (*Lamarckia aurea*).

Disturbed Riversidean sage scrub occurs along the Preferred and Alternative Subtransmission Source Line Routes. It is composed of hydroseeded areas or areas that have only a few sage scrub species scattered in vacant lots. The plant species that dominate these areas include deerweed (*Lotus scoparius*), California buckwheat, black mustard (*Brassica nigra*), and foxtail chess.

Disturbed mule fat scrub occurs along the Preferred and Alternative Subtransmission Source Line Routes and at the Etiwanda Substation. These areas receive some type of runoff from the surrounding development. They occur in depressions, and species consist mainly of mule fat (*Baccharis salicifolia*) with scattered non-native grasses and Douglas' nightshade (*Solanum douglasii*).

Annual grassland occurs along the Preferred and Alternative Subtransmission Source Line Routes. It is dominated by foxtail chess, California buckwheat, vinegar weed (*Trichostema lanceolatum*), rancher's fiddleneck (*Amsinckia menziesii*), ripgut brome (*Bromus diandrus*), and long-beaked filaree (*Erodium botrys*).

Annual grassland/disturbed Riversidean alluvial fan sage scrub occurs along the Preferred and Alternative Subtransmission Source Line Routes. It is composed of the non-native grasses which comprise the annual grassland vegetation type with scattered disturbed Riversidean alluvial fan sage scrub species including California buckwheat, deerweed, foxtail chess, wild oats, ripgut brome with scattered mule fat as well as some non-native species including broad-leaved peppergrass (*Lepidium latifolium*), castor bean (*Ricinus communis*), and tree tobacco (*Nicotiana glauca*).

Vineyards occur along the Preferred and Alternative Subtransmission Source Line Routes. They are abandoned but contain remnant grape vines (*Vitis* sp.). Due to the heavy rain season of 2009–2010, the grape vines have sprouted and non-native grasses and some native herbaceous species have grown in areas between the rows of vines.

Ruderal vegetation occurs in all portions of the survey area. It is dominated by wild oats, western sunflower (*Helianthus annuus*), long-beaked filaree, black locust (*Robinia psuedoacacia*), ripgut brome, prickly lettuce (*Lactuca serriola*), lamb's quarters (*Chenopodium album*), common eucrypta (*Eucrypta chrysanthemifolia*), and Peruvian pepper tree (*Schinus molle*). Ruderal vegetation also contained areas with scattered California buckwheat, rancher's fiddleneck, and deerweed.

Ornamental vegetation occurs along the Preferred and Alternative Subtransmission Source Line Routes and at the Etiwanda Substation. It is planted for aesthetic purposes and consists of, but is not limited to, the following species: gum trees (Eucalyptus sp.), myoporum (*Myoporum laetum*), lantana (*Lantana* sp.), day lily (*Hemerocallis* spp.), crape myrtle (*Lagerstoemia indica*), rose (*Rosa* spp.), and turf grass.

Disturbed areas occur along the Preferred and Alternative Subtransmission Source Line Routes and at the Etiwanda Substation. The disturbed areas are primarily dirt roads that lack vegetation except for a few scattered non-native species.

Developed areas occur along the Preferred and Alternative Subtransmission Source Line Routes and at the Etiwanda Substation. These areas are composed of paved roads that lack vegetation.

Developed/ornamental areas occur along the Preferred and Alternative Subtransmission Source Line Routes. They consist of buildings and dirt lots with landscaping. Ornamental vegetation in these areas includes Aleppo pine (*Pinus halepensis*), cherry tree (*Prunus* sp.), Indian fig (*Opuntia ficus-indica*), photinia (*Photinia* sp.), fortnight lily (*Dietes iridioides*), false heather (*Cuphea hyssopifolia*), geranium (*Pelargonium* sp.), prickly lettuce, telegraph weed (*Heterotheca grandiflora*), and yucca (*Yucca* sp.).

Developed/ruderal areas occur along the Preferred and Alternative Subtransmission Source Line Routes. These areas are composed of buildings with ruderal species occurring on the property.

A flood-control channel occurs along the Preferred and Alternative Subtransmission Source Line Routes. It is concrete and lacks vegetation.

Common Wildlife

The survey area provides suitable habitat for several wildlife species. No fish or amphibian species were observed or detected in the survey area during the biological survey; however, the garden slender salamander (*Batrachoseps* major) may occur in the survey area.

Lizard species observed in the survey area include western fence lizard (*Sceloperus occidentalis*), side-blotched lizard (*Uta stansburiana*), and coastal western whiptail (*Aspidoscelis tigris stejnegeri*). Other reptiles with potential to occur in the survey area include western skink (*Eumeces skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), California legless lizard (*Anniella pulchra pulchra*), ring-necked snake (*Diadophis punctatus*), coachwhip (*Masticophis flagellum*), gopher snake (*Pituophis melanoleucus*), and western rattlesnake (*Crotalus oreganus*).

Resident bird species observed in sage scrub and grassland/ruderal vegetation types in the survey area include California quail (*Callipepla californica*), western scrub-jay (*Aphelocoma californica*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), California thrasher (*Toxostoma redivivum*), lark sparrow (*Chondestes grammacus*), western meadowlark (*Sturnella neglecta*), spotted towhee (*Pipilo maculatus*), and California towhee (*Pipilo crissalis*). Urban-tolerant species that occur in both developed and disturbed areas, as well as in natural vegetation types, include killdeer (*Charadrius vociferus*), rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), American crow

(*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), Brewer's blackbird (*Euphagus cyanocephalus*), great-tailed grackle (*Quiscalis mexicanus*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus [Carduelis] psaltria*), and house sparrow (*Passer domesticus*).

Wintering birds are those species that generally breed outside the region but migrate to the area for the winter season. Wintering species that were observed include Say's phoebe (*Sayornis saya*), blue-gray gnatcatcher (*Polioptila caerulea*), yellow-rumped warbler (*Dendroica coronata*), and white-crowned sparrow. Summer residents are species that migrate into the region to breed, but generally winter south of the region. Summer breeders observed during the surveys include ash-throated flycatcher (*Myiarchus cinerascens*), western kingbird (*Tyrannus verticalis*), northern rough-winged swallow (*Stelgidopteryx serripennis*), cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), black-headed grosbeak (*Pheucticus melanocephalus*), brown-headed cowbird (*Molothrus ater*), hooded oriole (*Icterus cucullatus*), and Bullock's oriole (*Icterus bullockii*). During spring and fall migration, the survey area also provides foraging habitat for a variety of migratory species.

Birds of prey (raptors) observed in the survey area include turkey vulture (*Cathartes aura*) (a scavenger), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), and barn owl (*Tyto alba*). Of these species, the red-tailed hawk, American kestrel, and barn owl have potential to nest in the survey area due to existing electrical towers and buildings providing potentially suitable nesting substrate.

Small ground-dwelling mammals observed or expected to occur in the survey area include California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), Dulzura kangaroo rat (*Dipodomys simulans*), California vole (*Microtus californicus*), house mouse (*Mus musculus*), dusky-footed woodrat (*Neotoma fuscipes*), cactus mouse (*Peromyscus eremicus*), deer mouse (*Peromyscus maniculatus*), black rat (*Rattus rattus*), and western harvest mouse (*Reithrodontomys megalotis*).

Medium to large-sized mammals that were observed or are expected to occur in the survey area include Virginia opossum (*Didelphis virginiana*), desert cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), common raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and long tailed weasel (*Mustela frenata*). Gray fox (*Urocyon cinereoargenteus*) and bobcat (*Lynx rufus*) may also occur in the survey area.

Bats occur throughout most of Southern California and may use any portion of the survey area as foraging habitat. Most of the bats that may occur in the survey area are inactive during the winter and either hibernate or migrate, depending on the species. Bat species that may occur in the survey area include big brown bat (*Eptesicus fuscus*), California myotis (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), and Brazilian free-tailed bat (*Tadarida brasiliensis*). Buildings adjacent to the survey area may be used for roosting by these and other bat species.

Wildlife Movement

The survey area is located along the urban-wildland interface. The northern and northwestern portions of the survey area are relatively open. Although there are no major wildlife corridors within the survey area, natural open space in the survey area is contiguous with off-site habitats and provides connectivity to larger open space areas. Lytle Creek and Cajon Wash are located east of the survey area and provide a connection between the survey area and the Angeles National Forest and San Bernardino National Forest, located just over one mile upstream (north) of the survey area.

The southern portion of the survey area is relatively urbanized and the connection to the Santa Ana River to the south is highly constrained. Lytle Creek is channelized downstream of Foothill Boulevard; therefore, only urban-tolerant wildlife (e.g., coyote, skunk, and raccoon) and some bird species would be expected to traverse the unvegetated channel to the Santa Ana River.

Etiwanda Creek is channelized upstream, within the survey area, and downstream of the survey area. However, there is a portion of Etiwanda Creek between Foothill Boulevard and the 10 Freeway where the natural creek parallels the constructed channel; this creek segment is highly constrained by adjacent development. Wildlife may use this creek segment for local wildlife movement, but where the creek becomes channelized (both upstream and downstream of this segment), wildlife would be forced to use patches of undeveloped upland habitat (including agricultural areas) interspersed with developed areas for several miles to make the connection to larger open space areas such as the Angeles National Forest and the Santa Ana River. As described above, only urban-tolerant wildlife and some bird species would be expected to traverse the unvegetated channel and developed areas.

Overall, wildlife would be expected to move between open space habitats in the survey area north to habitat in the Angeles and San Bernardino National Forests, concentrating along Lytle and Cajon Creeks. Wildlife movement between the survey area and the Santa Ana River would be limited due to extensive urbanization/channelization; therefore, only urban-tolerant species and some bird species would be expected to move between the survey area and areas downstream.

Special Status Biological Resources

Special Status Vegetation Types

Resource agencies generally consider vegetation types to be special status if they support concentrations of special status plant or wildlife species, are of relatively limited distribution, or offer particular value to wildlife. While some special status vegetation types are not afforded legal protection unless they support protected species, others may be protected by ordinance, code, or regulation under which conformance typically requires a permit or other discretionary action prior to impacting the vegetation. Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, and disturbed Riversidean sage scrub may be considered special status vegetation types by the CDFG in the survey area.

Jurisdictional Areas

Drainages, which include "Waters of the U.S.", are protected under Section 404 of the Clean Water Act (CWA) and are under the jurisdiction of the U.S. Army Corps of Engineers (USACE). "Waters of the U.S." include navigable coastal and inland waters, lakes, rivers, streams and their tributaries; interstate waters and their tributaries; wetlands adjacent to such waters; intermittent streams; and other waters that could affect interstate commerce. The Regional Water Quality Control Board (RWQCB) is the primary agency responsible for protecting water quality within California through the regulation of discharges to surface waters under the CWA and the California Porter Cologne Water Quality Control Act (Porter-Cologne Act). The RWQCB's jurisdiction extends to all "Waters of the State" and to all "Waters of the U.S.", including wetlands (isolated and non isolated).

Section 401 of the CWA provides the RWQCB with the authority to regulate, through a Water Quality Certification, any proposed federally permitted activity that may affect water quality. Among such activities are discharges of dredged or fill material permitted by the USACE pursuant to Section 404 of the CWA. Section 401 requires the RWQCB to provide "certification that there is reasonable assurance that an activity which may result in the discharge to 'waters of the U.S.' will not violate water quality standards." Water Quality Certification must be based on a finding that the proposed discharge will comply with water quality standards, which contain numeric and narrative objectives that can be found in each of the nine RWQCB's Basin Plans.

An RWQCB CWA Section 401 Water Quality Certification is required before the USACE will issue a Section 404 permit. In addition, if drainages on the Project site meet the criteria established by Section 1600 of the California Fish and Game Code, the CDFG may require a Streambed Alteration Agreement prior to any modification of the beds, banks, or channels of any streambeds on the Project site.

Multiple features within and adjacent to the survey area may be under the jurisdiction of the USACE and/or the CDFG (Table 4.4.2; Figure 4.4-6). These features include Lytle Creek and east Etiwanda Creek, as well as flood-control channels that connect with these features. A jurisdictional determination to identify potentially jurisdictional resources has been conducted throughout the survey area and a jurisdictional delineation has been conducted within the Etiwanda Substation (Figure 4.4-6A). Potential jurisdictional resources are not present at the Preferred Substation site or the Alternative Substation site. For detailed methodology regarding the jurisdictional delineation, refer to the full Biological Technical Report (BonTerra Consulting 2010).

Table 4.4.2 Sections of the Survey Area Containing Potential Jurisdictional Resources

Site	Areas potentially under the jurisdiction of:		
	USACE	**CDFG**	**RWQCB**
Preferred Substation Site			
Alternative Substation Site			
Preferred Subtransmission Source Line Route[1]	x	x	x
Alternative Subtransmission Source Line Route	x	x	x
Etiwanda Substation	x	x	x

[1] The Proposed Telecommunications Route overlaps this component of the survey area.

Note: the Alder Substation and six potential staging areas are not included within the survey area.

Special Status Plants and Wildlife

Plants or wildlife may be considered to have "special status" due to declining populations, vulnerability to habitat change, or restricted distributions. Certain special status species have been listed as Threatened or Endangered under the California Endangered Species Act (CESA) and the Federal Endangered Species Act (FESA).

Special Status Plants

Special status plant species known to occur in the Project vicinity are listed in Appendix 4.4-3, along with habitat suitability and the potential for occurrence in the survey area. Some species may occur on some sites due to the presence of potentially suitable habitat. The Project alignment was changed between the start and finish of plant surveys. Therefore, portions of the Preferred and Alternative Substation Sites and the Alder Substation were not included in the plant survey area. Additional plant surveys for the portions of the Preferred Substation site will be conducted in Spring 2011.

Fifty-four special status plant species are known to occur in the vicinity of the survey area. Of these, 42 species are not expected to occur in the survey area due to lack of suitable habitat.

Of the potentially occurring species, three are federally and State-listed Endangered species: Nevin's barberry (*Berberis nevinii*), slender-horned spineflower (*Dodecahema leptoceras*), and Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*). These species were not observed during focused plant surveys.

In addition, suitable habitat for the following non-listed species occurs in the survey area: singlewhorl burrobrush (*Ambrosia monogyra*), Plummer's mariposa lily

(*Calochortus plummerae*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), California satintail (*Imperata brevifolia*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), Parish's desert-thorn (*Lycium parishii*), and Rock Creek broomrape (*Orobanche valida* ssp. *valida*). A total of 64 individuals of Plummer's mariposa lily and 47 individuals of Parry's spineflower were observed during focused plant surveys (Figure 4.4-7). The remaining species were not observed during focused plant surveys.

Special Status Wildlife

Special status wildlife species that are known to occur or potentially occur in the Project vicinity are listed in Appendix 4.4-4, along with habitat suitability and the potential for occurrence in the survey area. Some of these species were observed while conducting various field surveys or may occur on some of the sites due to the presence of potentially suitable habitat.

There are 49 special status wildlife species that are known to occur in the vicinity of the survey area. Of these, 27 species are not expected to occur in the survey area due to lack of suitable habitat. Northern harrier (*Circus cyaneus*) and white-tailed kite (*Elanus leucurus*) may occur for foraging; however, nesting individuals are protected and suitable nesting habitat is not present in the survey area. Therefore, these species are not expected to occur in the survey area for nesting.

Of the potentially occurring species, there is suitable habitat for three listed species: Delhi sands flower-loving fly, coastal California gnatcatcher, and San Bernardino kangaroo rat. Protocol level surveys for the Delhi sands flower-loving fly are in progress and will be completed in 2011. Protocol level surveys for the coastal California gnatcatcher and San Bernardino kangaroo rat are complete and the species were not observed (Figures 4.4-8 through 4.4 11).

In addition, suitable habitat for the following non-listed species occurs in the survey area: western spadefoot (*Spea hammondii*), coast horned lizard (*Phrynosoma coronatum [blainvillii population]*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), golden eagle (*Aquila chrysaetos*), burrowing owl, loggerhead shrike (*Lanius ludovicianus*), grasshopper sparrow (*Ammodramus savannarum*), Oregon vesper sparrow (*Pooecetes gramineus affinis*), tricolored blackbird (*Agelaius tricolor*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western yellow bat (*Lasiurus xathinus*), western mastiff bat (*Eumops perotis californicus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), San Diego black tailed jackrabbit (*Lepus californicus bennettii*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Los Angeles pocket mouse, San Diego desert woodrat (*Neotoma lepida intermedia*), southern grasshopper mouse (*Onychomys torridus ramona*), and American badger (*Taxidea taxus*). Burrowing owl was not observed during focused surveys. Coast horned lizard, loggerhead shrike, San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego desert woodrat were observed in the survey area.

Critical Habitat

The survey area is not within designated Critical Habitat for any federally listed species.

4.4.4 Regulatory Setting

Federal

Federal Endangered Species Act (16 United States Code [USC] 1531 et seq.)

The Federal Endangered Species Act of 1973 (FESA) protects plants and animals that are listed by the federal government as "Endangered" or "Threatened". A federally listed species is protected from unauthorized "take" pursuant to Section 9 of the FESA. "Take", as defined by the FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt to engage in any such conduct". All persons are presently prohibited from taking a federally listed species unless and until: (1) the appropriate Section 10(a) permit has been issued by the USFWS or (2) an incidental Take Statement is obtained as a result of formal consultation between a federal agency and the USFWS pursuant to Section 7 of the FESA and the implementing regulations that pertain to it (50 Code of Federal Regulations [CFR] 402). "Person" is defined in the FESA as "an individual, corporation, partnership, trust, association, or any private entity; any officer, employee, agent, department or instrument of the federal government; any State, Municipality, or political subdivision of the state; or any other entity subject to the jurisdiction of the United States". The Project Applicant is a "person" for purposes of the FESA.

Sections 404 and 401 of the Clean Water Act of 1972 (33 USC 1251 et seq.)

Section 404 of the CWA regulates the discharge of dredged or fill material into "Waters of the U.S.", including wetlands. The USACE is the designated regulatory agency responsible for administering the Section 404 permit program and for making jurisdictional determinations. This permitting authority applies to all "Waters of the U.S." where the material has the effect of (1) replacing any portion of "Waters of the U.S." with dry land or (2) changing the bottom elevation of any portion of "Waters of the U.S.". These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in the "Waters of the U.S.". Dredge and fill activities are typically associated with development projects; water-resource related projects; infrastructure development and wetland conversion to farming; forestry; and urban development.

Under Section 401 of the CWA, an activity requiring a USACE Section 404 permit must obtain a State Water Quality Certification (or waiver thereof) to ensure that the activity will not violate established State water quality standards. The State Water Resources Control Board (SWRCB), in conjunction with the nine California Regional Water Quality Control Boards (RWQCBs), is responsible for administering the Section 401 water quality certification program. Under Section 401 of the federal CWA, an activity involving discharge into a water body must obtain a federal permit and a State Water Quality Certification to ensure that the activity will not violate established water quality

standards. The U.S. Environmental Protection Agency (USEPA) is the federal regulatory agency responsible for implementing the CWA. However, it is the SWRCB, in conjunction with the nine RWQCBs, who essentially have been delegated the responsibility to administer the water quality certification (401) program.

Migratory Bird Treaty Act of 1918 (16 USC 703–712)

The Migratory Bird Treaty Act of 1918, as amended in 1972 (MBTA), makes it unlawful, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment; ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry or cause to be carried by any means whatever, receive for shipment, transportation, or carriage, or export, at any time, or in any manner, any migratory bird...for the protection of migratory birds...or any part, nest, or egg of any such bird" (16 United States Code (USC) 703).

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles), Cathartidae (New World vultures), Falconidae (falcons and caracaras), Pandionidae (ospreys), Strigidae (typical owls), and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protect all species and subspecies of these families.

Bald and Golden Eagle Protection Act (16 USC 668)

This Act provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession, and commerce of these bird species. The 1972 amendments increased penalties for violating provisions of the Act and strengthened other enforcement measures. A 1978 amendment authorizes the Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations. A 1994 Memorandum (59 CFR 22953, April 29, 1994) from President William J. Clinton to the heads of Executive Agencies and Departments sets out the policy concerning collection and distribution of eagle feathers for Native American religious purposes.

State

California Endangered Species Act (California Fish and Game Code, Section 2050 et seq.)

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the California Fish and Game Code, an incidental take permit from the CDFG is required for projects that could result in the take of a State-listed Threatened or Endangered species. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include "harm" or "harass", as the federal act does. As a result, the threshold for a take under the CESA is higher than that under the FESA. A CDFG-authorized Incidental Take Permit would be required where a project could result in the take of a State listed Threatened or Endangered Species. The application for an incidental take permit under Section 2081(b) has a number of

requirements including the preparation of a conservation plan, generally referred to as a state habitat conservation plan.

The State of California considers an Endangered Species to be one whose prospects of survival and reproduction are in immediate jeopardy; a Threatened Species as one present in such small numbers throughout its range that it is likely to become an Endangered Species in the near future in the absence of special protection or management; and a Rare Species as one present in such small numbers throughout its range that it may become Endangered if its present environment worsens. The Rare Species designation applies only to California native plants. The CESA authorizes the CDFG to issue permits authorizing incidental take of Threatened and Endangered Species. A California Species of Special Concern is an informal designation which the CDFG uses for some declining wildlife species that are not State Candidates for listing. This designation does not provide legal protection, but signifies that these species are recognized as special status by the CDFG.

California Environmental Quality Act (California Fish and Game Code, Section 1802)

State law confers upon the CDFG the trustee responsibility and authority for the public trust resource of wildlife in California. The CDFG may play various roles under the California Environmental Quality Act (CEQA) process. By State law, the CDFG has jurisdiction over the conservation, protection, and management of the wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. The CDFG shall consult with lead and responsible agencies and shall provide the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities.

As a trustee agency, the CDFG has jurisdiction over certain resources held in trust for the people of California. Trustee agencies are generally required to be notified of CEQA documents relevant to their jurisdiction, whether or not these agencies have actual permitting authority or approval power over aspects of the underlying project (14 California Code of Regulations [CCR], Section 15386). The CDFG, as a trustee agency, must be notified of CEQA documents regarding projects involving fish and wildlife of the state, as well as special-status native plants, wildlife areas, and ecological reserves. Although, as a trustee agency the CDFG cannot approve or disapprove a project, lead and responsible agencies are required to consult with the CDFG. The CDFG, as the trustee agency for fish and wildlife resources, shall provide the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities and shall make recommendations regarding those resources held in trust for the people of California (California Fish and Game Code, Section 1802).

California Fish and Game Code (Sections 1600–1616)

All diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake in California that support wildlife resources and/or riparian vegetation are subject to CDFG regulations, pursuant to Sections 1600 through 1603 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel

or bank of any river, stream or lake designated by CDFG as waters within their jurisdiction. Additionally, a person cannot use any material from the streambeds without first notifying the CDFG of such activity. For a project that may affect stream channels and/or riparian vegetation regulated under Sections 1600 through 1603, CDFG authorization is required in the form of a Streambed Alteration Agreement.

Sections 1900 et seq., or Native Plant Protection Act

This section lists Threatened, Endangered, and Rare plants so designated by the California Fish and Game Commission.

Sections 3511, 4700, 5050, and 5515

These sections provide a provision for the protection of bird, mammal, reptile, amphibian, and fish species that are "fully protected". Fully protected animals may not be harmed, taken, or possessed.

Section 3503, 3503.5, and 3513

This section states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 explicitly provides protection for all birds-of-prey, including their eggs and nests. Section 3513 makes it unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Title 14, California Code of Regulations, Sections 670.2 and 670.5

These sections list animals designated in California. The CDFG designates species considered to be indicators of as Threatened or Endangered regional habitat changes or candidate species for future state listing as California Species of Special Concern.

California Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the SWRCB and the nine RWQCBs may require permits (known as "Waste Discharge Requirements" or "WDRs") for the fill or alteration of the "Waters of the State". The term "Waters of the State" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050(e)). The State and Regional Boards have interpreted their authority to require WDRs to extend to any proposal to fill or alter "Waters of the State", even if those same waters are not under USACE jurisdiction. Pursuant to this authority, the State and Regional Boards may require the submission of a "report of waste discharge" under Section 13260, which is treated as an application for WDRs.

County

Plant Protection and Management

The San Bernardino County Code (Division 8, Chapter 88.01) provides for the protection of plant resources in the County. This ordinance applies to all private land within the unincorporated areas of San Bernardino County and to public lands owned by the County

except as specified by the provisions of this Division. The removal of any regulated native tree or desert native plant by "any public utility subject to jurisdiction of the Public Utilities Commission or any other constituted public agency, including franchised cable TV where to establish or maintain safe operation of facilities under their jurisdiction, trees are pruned, topped or braced," is exempt from this Division.

Local

City of Fontana

Chapter 28, Article III of the City of Fontana Municipal Code protects heritage,[1] significant, and/or specimen trees within the City located on both private and public property. A permit is required for removal of any heritage, significant, or specimen tree. This article applies to development projects that require the following: a subdivision of property and/or a project requiring design advisory board review and/or a design review. Additionally, all heritage trees so designated by city council resolution, or endangered species as specified by federal or state statute are also covered by this article.

4.4.5 Significance Criteria

The significance criteria for assessing the impacts to biological resources come from the California CEQA Environmental Checklist. According to the checklist, a project causes a potentially significant impact if it would:

- 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 CDFG or USFWS.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

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

[1] Heritage tree means any tree which is of historical value, is representative of a significant period of the City's growth or development, is a protected or endangered species as specified by federal or state statute, or is deemed historically or culturally significant by the city manager or his or her designee because of size, condition, location, or aesthetic qualities.

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

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

Section 15065(a), Mandatory Findings of Significance, of the CEQA Guidelines states that a project may have a significant effect on the environment if "the project has the potential to substantially 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, substantially reduce the number or restrict the range of an endangered, rare or threatened species".

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would substantially diminish, or result in the loss of, an important biological resource or those that would obviously conflict with local, State or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse but not significant because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population- or regional basis.

Section 15380 of the CEQA Guidelines indicates that a lead agency can consider a non-listed species to be Rare or Endangered for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered according to the definitions for Rare and Endangered listed in Section 15380 of the CEQA Guidelines.

The actual and potential occurrence of special-status biological resources in the survey area was correlated with the significance criteria described above to determine whether the impacts of the Project on these resources would be significant, less than significant, or would result in no impact.

4.4.6 Impact Analysis

The determination of impacts in this analysis is based on a comparison of maps depicting Project limits and maps of biological resources in the survey area. Impact assessments are based on the Project footprint, as available July 2010. All construction activities, including equipment areas, are assumed to be within the grading limits identified on Figure 4.4 12. In this analysis, Project impacts along the subtransmission source line routes (including Preferred and Alternative Subtransmission Source Line Routes, Proposed Telecommunications Route, pole locations, wire stringing locations, and access roads) are assumed to be 14 feet wide with a 2 foot shoulder on each side for a total disturbance width of 18 feet wide. Project impacts associated with the Etiwanda Substation are assumed to be three feet wide with a two-foot shoulder on each side for a

total temporary impact width of seven feet. The entire approximate 7.5-acre Preferred Substation site and 9.6-acre Alternative Substation site would be impacted. Construction support activities, such as the establishment of one or more temporary staging areas and the development of additional access roads extending to construction sites, have not been analyzed and analysis would be required. Potential staging areas are shown on Figures 4.4-2 and 4.4-3 and each area would be 0.5 to 5.0 acres in size.

Biological impacts associated with the Proposed Project were evaluated with respect to the following special status biological issues:

- Federally or State-listed Endangered or Threatened species of plant or wildlife
- Species designated as California Species of Special Concern
- Streambeds, wetlands, and their associated vegetation
- Habitats suitable to support a federally or State-listed Endangered or Threatened species of plant or wildlife
- Habitat, other than wetlands, considered special status by regulatory agencies (USFWS, CDFG) or resource conservation organizations
- Other species or issues of concern to regulatory agencies, or conservation organizations

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

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?

There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan within the Project area. Therefore, there would be no impacts.

Construction Impacts

Construction impacts have been discussed separately for each Project component. Construction impacts may include both direct and indirect impacts on biological resources. Direct construction impacts involve the initial loss of habitats due to grading, construction, and construction related activities. Indirect construction impacts are those that would be related to impacts on the adjacent remaining habitat due to construction activities (e.g., noise, dust).

The Proposed Telecommunications Route follows the path of the Preferred Subtransmission Source Line Route, and therefore is not discussed separately. Also, if the

Project is implemented with the Alternative Subtransmission Source Line Route, there would be additional impacts for the Proposed Telecommunications Route. These impacts have not been separately analyzed.

Preferred Subtransmission Source Line Route and Proposed Telecommunications Route

Construction of the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route have the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Construction of the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route may result in the loss of active bird or raptor nests. The MBTA protects migratory birds, as well as their nests and eggs. If construction is initiated outside the nesting season (the nesting season is generally March 15 to September 15 for migratory birds and February 1 to August 31 for raptors/burrowing owls), there would be no impact on nesting birds/raptors/burrowing owls. If construction is initiated during the nesting bird/raptor season, the impact on an active nest would be potentially significant; therefore, SCE proposes to implement APM-BIO-01 to reduce this impact to a less than significant level.

APM-BIO-01: Migratory Bird Treaty Act (MBTA) and Nesting Raptors

In order to avoid impacts on nesting birds and raptors (common or special status), Project initiation shall be scheduled outside the breeding season (i.e., March 15–September 15 for nesting birds; February 1–June 30 for nesting raptors). If Project timing requires that work be initiated during this time period, a pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within 7 days prior to clearing of any vegetation or any work within 500 feet of construction areas. If the Biologist does not find any active nests within the impact area, the vegetation clearing/construction work shall be allowed to proceed.

If the Biologist finds an active nest within the construction area and determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist will delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. The active site will be protected until nesting activity has ended to ensure compliance with the MBTA and California Fish and Game Code. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants.

The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route would impact four individuals of Plummer's mariposa lily and 47 individuals of Parry's spineflower (Figure 4.4-13I and 4.4-13O). Potential impacts to Plummer's mariposa lily and Parry's spineflower are adverse but less than significant because the loss of these individuals would not adversely affect the regional population of these species. However, complete avoidance of these special status plant species are recommended. No other special status plant species were observed during focused surveys. Therefore, there would be no impact on these species.

The Delhi sands flower-loving fly has limited potential to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. Protocol level surveys are currently being conducted within potentially suitable habitat in the survey area (Figure 4.4 8). If the Delhi sands flower-loving fly is not observed during protocol level surveys, there would be no impact. If Delhi sands flower-loving fly is observed during protocol level surveys, authorization to proceed with project activities within occupied habitat shall be required from the USFWS through either Section 7 or 10 Consultation Fly habitat will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to this species are avoided. The mitigation/compensation for the loss of Delhi sands flower-loving fly habitat will be approved with the resource agencies.

The arroyo chub, Santa Ana speckled dace, Santa Ana sucker, arroyo toad, California red legged frog, and Sierra Madre yellow-legged frog are not expected to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route due to lack of suitable habitat. Therefore, there would be no impact on these species.

The western spadefoot may occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route, most likely in the natural segment of Etiwanda Creek between Foothill Boulevard and the southern boundary of the survey area. However, no potential breeding pools were noted during surveys. The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route would result in the loss of a limited amount of foraging habitat for this species. This loss would be considered an adverse, but less than significant impact.

The southwestern pond turtle, orange-throated whiptail, southern rubber boa, two-striped garter snake, and northern red-diamond rattlesnake are not expected to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route due to lack of suitable habitat or because the survey area is outside of the species' range. Therefore, there would be no impact on these species.

The coast horned lizard was observed and coast patch-nosed snake may occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. These species would be most likely to occur in the Riversidean sage scrub and grassland vegetation types in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant impact.

Swainson's hawk, bald eagle, mountain plover, western yellow-billed cuckoo, long-eared owl, southwestern willow flycatcher, Vermilion flycatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat are not expected to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route either due to lack of suitable habitat or because they are not known to winter in the Project vicinity. Therefore, there would be no impact on these species.

Although there is suitable habitat present along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route (Figure 4.4-10), the coastal California gnatcatcher is not expected to occur because it was not observed during protocol level surveys. Therefore, there would be no impact on this species.

Loggerhead shrike was observed, grasshopper sparrow may occur, and tricolored blackbird has a limited potential to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. All these species have some potential to nest in the survey area, either in the Riversidean sage scrub and grassland vegetation types in the survey area. Impacts on active nests would be avoided with implementation of APM-BIO-01. Therefore, there should be no impact on nests of these species.

Oregon vesper sparrow has potential to winter along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route, most likely in the grassland vegetation types. Due to the limited amount of habitat loss relative to the availability of habitat for this species in the region, impacts on Oregon vesper sparrow would be considered adverse, but less than significant.

Golden eagle, northern harrier, and white-tailed kite have potential to forage along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route but would not be expected to nest in the survey area. The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route would result in the loss of approximately 18.00 acres of quality foraging habitat (i.e., sage scrub, mule fat, grassland, ruderal, and vineyard vegetation types) for these species. This loss of foraging habitat for these raptor species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse, but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on raptor foraging habitat would be considered adverse but less than significant

Although there is suitable habitat along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route (Figure 4.4-9), the burrowing owl is not expected to occur because it was not observed during protocol level surveys. Therefore, there would be no impact on this species. Due to suitable habitat to occur in the project area, although currently unoccupied, a pre-construction survey will be conducted within 30 days of the start of construction. Any active burrow found during survey efforts will be mapped on the construction plans. If no active burrows are found, no further mitigation would be required. Results of the surveys will be provided to SCE and the CDFG. If nesting activity is present at an active burrow, the active site will be protected

until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for burrowing owl in the region normally occurs between March and August. To protect the active burrow, the following restrictions to construction activities will be required until the burrow is no longer active as determined by a qualified Biologist: (1) clearing limits will be established within a 500-foot buffer around any active burrow, unless otherwise determined by a qualified Biologist and (2) access and surveying will be restricted within 300 feet of any active burrow, unless otherwise determined by a qualified Biologist. Any encroachment into the buffer area around the active burrow will only be allowed if the Biologist determines that the proposed activity will not disturb the nest occupants. Construction can proceed when the qualified Biologist has determined that fledglings have left the nest.

San Bernardino flying squirrel, pallid San Diego pocket mouse, and Stephens' kangaroo rat are not expected to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route due to lack of suitable habitat or because the survey area is outside the species' range. Therefore, there would be no impact on these.

San Bernardino kangaroo rat is not expected to occur along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route because it was not trapped during protocol level survey efforts. Therefore, there would be no impact on this species.

Pallid bat, Townsend's big-eared bat, western yellow bat, western mastiff bat, and pocketed free-tailed bat have potential to forage along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route would result in the loss of approximately 18.00 acres of quality foraging habitat (i.e., sage scrub, mule fat, grassland, ruderal, and vineyard vegetation types) for these bat species. This loss of foraging habitat for these bat species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on bat foraging habitat would be considered adverse but less than significant.

Limited suitable bat roosting habitat is present along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. Few bats are expected to roost in the survey area; pallid bat and Townsend's big-eared bat have limited potential to roost in old buildings along the Preferred Subtransmission Source Line Route. Due to the limited loss of bat roosts relative to the availability of roosts in the region, impacts on these species would be considered less than significant.

Los Angeles pocket mouse occurs in the survey area. The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route would impact occupied habitat for this species (Figure 4.4-13A). This impact would be considered potentially significant; therefore, impacts to the Los Angeles pocket mouse would be avoided to the maximum extent feasible in the final Project design. Habitat areas will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor

during Project construction would further ensure that any potential impacts to this species are avoided.

San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, and San Diego desert woodrat were observed in the survey area, and southern grasshopper mouse and American badger were not observed in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be less than significant.

Noise levels along the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route are expected to increase over present levels during construction of the Proposed Project. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and/or denning activities for a variety of wildlife species. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. This impact is considered adverse but less than significant. For additional information pertaining to the noise analysis for the Proposed Project, see Section 4.12 Noise.

Grading and other construction activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area could be impaired if dust accumulation is excessive. This indirect impact is considered adverse but less than significant since it would not reduce plant populations below self-sustaining levels in the region.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route may impact the following types of vegetation: Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, disturbed mule fat scrub, annual grassland, annual grassland/disturbed Riversidean alluvial fan sage scrub, vineyards, ruderal, and ornamental. In addition, the Project may impact disturbed, developed, developed/ornamental, and developed/ruderal areas, and a flood-control channel. A total of 23.06 acres will be impacted by the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. These impacts are shown on Figure 4.4-12 and summarized in Table 4.4.3.

Table 4.4.3 Impacts Resulting from the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route

Vegetation Type or Other Area	**Existing (Acres)**	**Impact (Acres)**
Riversidean Alluvial Fan Sage Scrub	1.40	0.23
Disturbed Riversidean Alluvial Fan Sage Scrub	10.09	2.15
Disturbed Riversidean Sage Scrub	0.30	0.05
Disturbed Mule Fat Scrub	0.42	0.06
Annual Grassland	8.63	1.55
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub	9.98	1.12
Vineyards	6.41	1.36
Ruderal	72.76	11.48
Ornamental	3.73	0.70
Disturbed	2.38	0.61
Developed	19.49	2.51
Developed/Ornamental	3.18	0.57
Vegetation Type or Other Area	**Existing** (Acres)	**Impact** (Acres)
Developed/Ruderal	3.00	0.54
Flood-Control Channel	0.72	0.13
Total	**142.49**	**23.06**

Impacts on annual grassland and ruderal vegetation would be considered adverse; however, this loss would be limited in relation to the total amount of these vegetation types available in the Project region. Therefore, the loss of these vegetation types would be considered less than significant. Vineyards, ornamental, disturbed, developed, developed/ornamental, and developed/ruderal areas are generally considered of low biological value because they lack vegetation or are vegetated by ornamental species; they also have a high level of human activity. Therefore, the loss of these areas would be considered less than significant.

Riversidean alluvial fan sage scrub (mapped as Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, and annual grassland/disturbed Riversidean

alluvial fan sage scrub) and disturbed Riversidean sage scrub are special status vegetation types. Impacts to these vegetation types would be considered potentially significant; therefore, impacts would be avoided to the maximum extent feasible in the final Project design. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to these vegetation types are avoided. With implementation of these measures, there would be no impact on these vegetation types. If impacts to these vegetation types are unavoidable, implementation of APM-BIO-02 would reduce this impact to less than significant.

APM-BIO-02: Riversidean Alluvial Fan Sage Scrub, Disturbed Riversidean Alluvial Fan Sage Scrub, Disturbed Riversidean Sage Scrub, and Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub

Project impacts on sage scrub vegetation types would be avoided and/or minimized to the maximum extent practicable. Permanent impacts to disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, and annual grassland/disturbed Riversidean alluvial fan sage scrub vegetation would be mitigated at a minimum replacement ratio of 1:1. Residual temporary impacts on undisturbed/disturbed Riversidean alluvial fan sage scrub would be restored on site and/or mitigated at a replacement ratio of 1:1. Permanent impacts on undisturbed Riversidean alluvial fan sage scrub would be mitigated at a replacement ratio of up to 3:1. Final compensation ratios for impacts to Riversidean alluvial fan sage scrub would be determined in consultation with USFWS and CDFG.

A detailed restoration program shall be prepared for approval by SCE and the appropriate resource agencies. Restoration shall consist of seeding and planting containers of appropriate Riversidean alluvial fan sage scrub species. The program shall include, at a minimum, the following items:

- Responsibilities and qualifications of the personnel to implement and supervise the plan.
- Site selection.
- Site preparation and planting implementation.
- Schedule.
- Maintenance plan/guidelines.
- Monitoring plan.
- Long-term preservation.

Additionally, the grading limits shall be clearly marked, and temporary fencing or other appropriate markers shall be placed around any sage scrub vegetation adjacent to work areas prior to the commencement of any ground-disturbing

activity or native vegetation removal. No construction access, parking, or storage of equipment or materials shall be permitted within the marked areas.

SCE shall be fully responsible for implementing the Riversidean Alluvial Fan Sage Scrub Revegetation Program until the restoration areas have met the success criteria outlined in the program. SCE and the appropriate resource agencies shall have final authority over mitigation area sign-off. The site shall be monitored and maintained for a suitable number years to ensure successful establishment of Riversidean alluvial fan sage scrub habitat within the restored and created areas, as determined by the resource agencies.

Disturbed mule fat scrub occurs within an area delineated as under the jurisdiction of the USACE and the CDFG. Direct grading and construction impacts to this vegetation type will be avoided to the maximum extent feasible in the final Project design. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to this vegetation type are avoided. With implementation of these measures, there would be a less than significant impact on this vegetation type.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route crosses over the flood-control channel in portions of the survey area. The flood-control channel and other features in the survey area may be under the jurisdiction of the USACE and/or CDFG (Figure 4.4-6). The Preferred Subtransmission Source Line Route and Proposed Telecommunications Route, as proposed, is not expected to cause impacts to any jurisdictional resources (with the exception of the jurisdictional area within the Etiwanda Substation). Direct grading and construction impacts in these areas will be avoided as subtransmission line routes will span the flood-control channels so that there will be no direct or indirect impacts. Therefore, impacts are considered less than significant. If Project design changes and impacts to jurisdictional areas are determined to be necessary, a jurisdictional delineation shall be conducted to describe the type and extent of "Waters of the U.S.", including wetlands, and/or "Waters of the State" within the proposed impact area. The presence or absence of wetlands shall be verified through an analysis of any hydrological conditions, hydrophytic vegetation, and hydric soils pursuant to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008).

Prior to any impacts on jurisdictional areas, permits/agreements from the USACE, the CDFG, and the RWQCB shall be obtained for direct and indirect impacts on areas within these agencies' jurisdictions. Acquisition and implementation of the permit/agreement may constrain proposed activities. SCE shall implement all measures required by the permits/agreements as issued by the resource agencies. Mitigation will include restoration of disturbed jurisdictional areas. A minimum replacement ratio of 1:1, or as otherwise

agreed to by the resource agencies, would be required to ensure that there would be no net loss of habitat value.

During construction, excess silt, petroleum, or chemicals on the soil surface within the construction area could be washed into drainages during storms and may affect areas downstream of the Proposed Project. Adverse effects on water quality could indirectly impact species that use riparian areas within the watershed by affecting the food web interactions (e.g., abundance of insects or other prey) or through biomagnification (i.e., the build up of pesticides to toxic levels in higher trophic levels). With implementation of standard Best Management Practices (BMPs), this impact is expected to be less than significant.

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 corridor, or impede the use of native wildlife nursery sites?

Overall, the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route occurs within an urban area. It would be constructed within or adjacent to existing streets, developed areas, or existing powerlines. Although some of these areas are adjacent to open space (e.g., a segment over the natural segment of Etiwanda Creek), once constructed, powerlines would not obstruct the movement of wildlife because they would be elevated and wildlife would be able to move along the dirt access roads underneath the powerlines. Additionally, the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route would not be expected to disrupt wildlife movement along Lytle Creek, which is approximately one mile from the nearest Proposed Project feature (i.e., the Alternative Subtransmission Source Line Route).

Construction activities to install the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route could temporarily disrupt local wildlife movement along the natural segment of Etiwanda Creek between Foothill Boulevard and the Etiwanda Substation because it would remove habitat and create dust and noise in this segment of the proposed impact area. This impact is expected to be adverse but less than significant because the impact area is limited to 18 feet wide while the creek width ranges from 60 or 100 feet wide (between Arrow Route and Napa Street) and 600 feet or greater along other, less constrained portions of this segment of the creek; therefore, wildlife could continue to move along the creek in natural habitats adjacent to the proposed impact area. During active construction, wildlife movement may be deterred by noise and human activity; however, most wildlife movement would occur at night, while construction activities would occur during the day. Additionally, wildlife in this segment of the creek is likely somewhat acclimated to noise and human activity due to the extensive urbanization and constrained nature of the creek along this segment. Construction activities would also be temporary in nature. Therefore, construction impacts on wildlife movement would be considered adverse, but less than significant.

There are no native wildlife nursery sites within the survey area.

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

Trees protected by the County of San Bernardino or City of Fontana were not identified in the Project impact area.

Preferred Substation Site

Construction of the Preferred Substation site has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Construction of the Preferred Substation site would result in a minimal loss of moderate to high quality habitat for common wildlife species (i.e., a total of 4.64 acres of disturbed Riversidean alluvial fan sage scrub and ruderal [see below for discussion of vegetation impacts]). The loss of limited wildlife habitat is considered an adverse but less than significant impact.

Construction at the Preferred Substation site may result in the loss of active bird nests. The MBTA protects migratory birds, their nests, and eggs. If construction is initiated outside the nesting season (the nesting season is generally March 15 to September 15 for migratory birds), there would be no impact on nesting birds and no APMs would be required. If construction is initiated during the nesting bird season, the impact on an active nest would be potentially significant. Implementation of APM-BIO-01 would reduce this impact to a less than significant level.

The Preferred Substation site would impact three individuals of Plummer's mariposa lily; no Parry's spineflower populations would be impacted within the area that has been surveyed (Figure 4.4-13J).

The Delhi sands flower-loving fly is not expected to occur at the Preferred Substation site since suitable habitat is not present at this site. Therefore, there would be no impact on this species.

The arroyo chub, Santa Ana speckled dace, Santa Ana sucker, arroyo toad, California red legged frog, Sierra Madre yellow-legged frog, western spadefoot, southwestern pond turtle, orange-throated whiptail, southern rubber boa, two-striped garter snake, and northern red diamond rattlesnake are not expected to occur at the Preferred Substation site due to lack of suitable habitat or because the survey area is outside of the species' range. Therefore, there would be no impact on these species.

The coast horned lizard was observed in the survey area and coast patch-nosed snake may occur in the survey area. These species would be most likely to occur in the disturbed Riversidean alluvial fan sage scrub at the Preferred Substation site. Due to the limited

amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Swainson's hawk, bald eagle, mountain plover, western yellow-billed cuckoo, long-eared owl, southwestern willow flycatcher, Vermilion flycatcher, least Bell's vireo, yellow warbler, yellow breasted chat, Oregon vesper sparrow, and tricolored blackbird are not expected to occur at the Preferred Substation site either due to lack of suitable habitat or because they are not known to winter in the Project vicinity. Therefore, there would be no impact on these species.

Although there is suitable habitat present on the Preferred Substation site, the coastal California gnatcatcher is not expected to occur because it was not observed during protocol level surveys. Therefore, there would be no impact on this species.

Loggerhead shrike was observed in the survey area and grasshopper sparrow may occur at the Preferred Substation site. These species have some potential nest in the survey area, either in the Riversidean sage scrub or grassland vegetation types in the survey area. Impacts on active nests would be avoided with implementation of APM-BIO-01. Therefore, there should be no impact on nests of these species.

Golden eagle, northern harrier, and white-tailed kite have potential to forage at the Preferred Substation site but would not be expected to nest in the survey area. The Preferred Substation site would result in the loss of approximately 4.64 acres of quality foraging habitat (i.e., sage scrub and ruderal vegetation types) for these species. This loss of foraging habitat for these raptor species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse, but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on raptor foraging habitat would be considered adverse but less than significant.

Although there is suitable habitat present on the Preferred Substation site, the burrowing owl is not expected to occur because it was not observed during protocol level surveys. Therefore, there would be no impact on this species. Due to suitable habitat to occur in the project area, although currently unoccupied, a pre-construction survey will be conducted within 30 days of the start of construction. Any active burrow found during survey efforts will be mapped on the construction plans. If no active burrows are found, no further mitigation would be required. Results of the surveys will be provided to SCE and the CDFG.

If nesting activity is present at an active burrow, the active site will be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for burrowing owl in the region normally occurs between March and August. To protect the active burrow, the following restrictions to construction activities will be required until the burrow is no longer active as determined by a qualified Biologist: (1) clearing limits will be established within a 500-foot buffer around any active burrow, unless otherwise determined by a qualified Biologist and (2)

access and surveying will be restricted within 300 feet of any active burrow, unless otherwise determined by a qualified Biologist. Any encroachment into the buffer area around the active burrow will only be allowed if the Biologist determines that the proposed activity will not disturb the nest occupants. Construction can proceed when the qualified Biologist has determined that fledglings have left the nest.

San Bernardino flying squirrel, pallid San Diego pocket mouse, and Stephens' kangaroo rat are not expected to occur at the Preferred Substation site due to lack of suitable habitat or because the survey area is outside the species' range. Therefore, there would be no impact on these species.

San Bernardino kangaroo rat is not expected to occur at the Preferred Substation site because it was not trapped during focused survey efforts. Therefore, there would be no impact on this species.

Pallid bat, Townsend's big-eared bat, western yellow bat, western mastiff bat, and pocketed free-tailed bat have potential to forage at the Preferred Substation site. The Preferred Substation site would result in the loss of approximately 4.64 acres of quality foraging habitat (i.e., sage scrub and ruderal vegetation types) for these bat species. This loss of foraging habitat for these bat species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on bat foraging habitat would be considered adverse but less than significant.

No suitable bat roosting habitat (e.g., old buildings) is present at the Preferred Substation site. Therefore, there will be no impacts on bat roosts.

Suitable habitat occurs on the Preferred Substation site for the Los Angeles pocket mouse (Figure 4.4-11); however, there would be no impact to this species because it was not trapped during focused survey efforts.

San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, and San Diego desert woodrat were observed in the survey area, and southern grasshopper mouse and American badger may occur in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Noise levels at the Preferred Substation site are expected to increase over present levels during construction of the Proposed Project. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and/or denning activities for a variety of wildlife species. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. This impact is considered adverse but less than significant. For additional information pertaining to the noise analysis for the Proposed Project, see Section 4.12 Noise.

Grading and other construction activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area could be impaired if dust accumulation is excessive. This indirect impact is considered adverse but less than significant since it would not reduce plant populations below self-sustaining levels in the region.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

The Preferred Substation site may impact the following types of vegetation: Riversidean alluvial fan sage scrub and ruderal. A total of 7.39 acres will be impacted at the Preferred Substation site. These impacts are shown in Figure 4.4-12 and summarized in Table 4.4.4.

Table 4.4.4 Impacts Resulting from the Preferred Substation Site

Vegetation Type or Other Area	Existing (Acres)	Impact[1] (Acres)
Disturbed Riversidean Alluvial Fan Sage Scrub	4.60	4.60
Ruderal	0.04	0.04
Total	**7.39**	**7.39**

[1] The staging area at this Project component is not included within the survey area. The portion that was excluded from general and focused plant surveys is not a part of the discussion of biological resources.

Riversidean alluvial fan sage scrub (mapped as disturbed Riversidean alluvial fan sage scrub) is a special status vegetation type. Impacts to this vegetation type would be considered potentially significant. Direct grading and construction impacts to this vegetation type would be avoided to the maximum extent feasible in the final Project design. If impacts to this vegetation type are unavoidable, implementation of APM-BIO-02 would reduce this impact to less than significant.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No areas protected under Section 404 of the Clean Water Act are present within the Preferred Substation site. Therefore, there would be no impact on this resource.

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 corridor, or impede the use of native wildlife nursery sites?

Overall, the Preferred Substation site occurs within an urban area. Although there is a nearby open lot, once constructed, powerlines would not obstruct the movement of wildlife because they would be elevated and wildlife would be able to move along the dirt access roads underneath the powerlines. Additionally, the Preferred Substation site would not be expected to disrupt wildlife movement along Lytle Creek, which is approximately one mile from the nearest Proposed Project feature (i.e., Alternative Subtransmission Source Line Route).

During active construction, wildlife movement may be deterred by noise and human activity; however, most wildlife movement would occur at night, while construction activities would occur during the day. Additionally, wildlife is likely somewhat acclimated to noise and human activity due to urbanization in the area. Construction activities would also be temporary in nature. Therefore, construction impacts on wildlife movement would be considered adverse, but less than significant.

There are no native wildlife nursery sites within the survey area.

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

No trees protected by the County of San Bernardino or the City of Fontana would be impacted by the Preferred Substation site.

Etiwanda Substation

Construction of the Etiwanda Substation has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Construction at the Etiwanda Substation may result in the loss of active bird nests. The MBTA protects migratory birds, their nests, and eggs. If construction is initiated outside the nesting season (the nesting season is generally March 15 to September 15 for migratory birds), there would be no impact on nesting birds and no APMs would be required. If construction is initiated during the nesting bird season, the impact on an active nest would be potentially significant. Implementation of APM-BIO-01 would reduce this impact to a less than significant level.

No populations of Plummer's mariposa lily or Parry's spineflower would be impacted by the Etiwanda Substation.

The Delhi sands flower-loving fly has limited potential to occur at the Etiwanda Substation. Protocol level surveys are currently being conducted within potentially suitable habitat in the survey area. If the Delhi sands flower-loving fly is not observed during protocol level surveys, there would be no impact and no APMs would be required. If Delhi sands flower-loving fly is observed during protocol level surveys, complete avoidance of fly habitat is recommended, and the areas will be clearly marked with orange and red flagging in the field prior to construction. Fly habitat will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor during project construction would further ensure that any potential impacts to this species are avoided. If its habitat would be impacted by the Etiwanda Substation, authorization to proceed shall be required from the USFWS. The mitigation/compensation for the loss of Delhi sands flower-loving fly habitat will be approved through consultation with the resource agencies. The arroyo chub, Santa Ana speckled dace, Santa Ana sucker, arroyo toad, California red legged frog, Sierra Madre yellow-legged frog, western spadefoot, southwestern pond turtle, orange-throated whiptail, southern rubber boa, two-striped garter snake, and northern red diamond rattlesnake are not expected to occur at the Etiwanda Substation due to lack of suitable habitat or because the survey area is outside of the species' range. Therefore, there would be no impact on these species.

The coast horned lizard was observed and coast patch-nosed snake may occur at the Etiwanda Substation. These species would be most likely to occur in the Riversidean alluvial fan sage scrub in the survey area. Suitable habitat would not be impacted.

Swainson's hawk, bald eagle, mountain plover, western yellow-billed cuckoo, long-eared owl, southwestern willow flycatcher, Vermilion flycatcher, least Bell's vireo, yellow warbler, yellow breasted chat, Oregon vesper sparrow, and tricolored blackbird are not expected to occur at the Etiwanda Substation either due to lack of suitable habitat or because they are not known to winter in the Project vicinity; therefore, there would be no impact on these species.

Although there is suitable habitat present at the Etiwanda Substation, the coastal California gnatcatcher is not expected to occur because it was not observed during protocol level surveys; therefore, there would be no impact on this species.

Loggerhead shrike was observed and grasshopper sparrow may occur at the Etiwanda Substation. These species have some potential nest in the survey area, either in the Riversidean sage scrub and grassland vegetation types in the survey area. Impacts on active nests would be avoided with implementation of APM-BIO-01; therefore, there should be no impact on nests of these species.

Golden eagle, northern harrier, and white-tailed kite have potential to forage at the Etiwanda Substation but would not be expected to nest in the survey area. The Etiwanda Substation would result in the loss of approximately 0.11 acre of foraging habitat (i.e., ruderal vegetation) for these species. This loss of foraging habitat for these raptor species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse, but would not be expected to

appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region; therefore, impacts on raptor foraging habitat would be considered adverse but less than significant.

Burrowing owl is not expected to occur at the Etiwanda Substation because it was not observed during protocol level surveys; therefore, there would be no impact on this species.

San Bernardino flying squirrel, pallid San Diego pocket mouse, and Stephens' kangaroo rat are not expected to occur at the Etiwanda Substation due to lack of suitable habitat or because the survey area is outside the species' range; therefore, there would be no impact on these species.

San Bernardino kangaroo rat is not expected to occur at the Etiwanda Substation because it was not trapped during protocol level survey efforts; therefore, there would be no impact on this species.

Pallid bat, Townsend's big-eared bat, western yellow bat, western mastiff bat, and pocketed free-tailed bat have potential to forage at the Etiwanda Substation. The Etiwanda Substation would result in the loss of approximately 0.11 acre of foraging habitat (i.e., ruderal vegetation) for these bat species. This loss of foraging habitat for these bat species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region; therefore, impacts on bat foraging habitat would be considered adverse but less than significant.

Limited suitable bat roosting habitat is present (e.g., old buildings) at the Etiwanda Substation. Few bats are expected to roost in the survey area; pallid bat and Townsend's big-eared bat have limited potential to roost in old buildings in the survey area. Due to the limited loss of bat roosts relative to the availability of roosts in the region, impacts on these species would be considered less than significant.

The Etiwanda Substation would impact occupied habitat for the Los Angeles pocket mouse (Figure 4.4-13A). This impact would be considered potentially significant; therefore, impacts to the Los Angeles pocket mouse would be avoided to the maximum extent feasible in the final Project design. Habitat areas will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to this species are avoided.

San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, and San Diego desert woodrat were observed in the survey area, and southern grasshopper mouse and American badger may occur in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Noise levels at the Etiwanda Substation are expected to increase over present levels during construction of the Proposed Project. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and/or denning activities for a variety of wildlife species. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. This impact is considered adverse but less than significant.

Grading and other construction activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area could be impaired if dust accumulation is excessive. This indirect impact is considered adverse but less than significant since it would not reduce plant populations below self-sustaining levels in the region.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

Construction at the Etiwanda Substation would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. A total of 0.11 acre of ruderal habitat will be impacted by the Etiwanda Substation. This impact is shown in Figure 4.4-12 and summarized in Table 4.4.5.

Table 4.4.5 Impacts Resulting from the Etiwanda Substation Site

Vegetation Type or Other Area	Existing (Acres)	Impact (Acres)
Riversidean Alluvial Fan Sage Scrub	13.46	0.00
Disturbed Mule Fat Scrub	0.61	0.00
Ruderal	17.45	0.11
Ornamental	0.37	0.00
Disturbed	2.69	0.00
Developed	17.01	0.00
Total	**51.59**	**0.11**

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

A drainage potentially under the jurisdiction of the USACE and/or the CDFG occurs at the Etiwanda Substation (Figure 4.4-14). Construction at the Etiwanda Substation would temporarily impact 0.004 acre of "Waters of the U.S." and 0.006 acre of "Waters of the

State" within the Etiwanda Substation. Impacts on these jurisdictional features would be considered adverse but less than significant..

During construction, excess silt, petroleum, or chemicals on the soil surface within the construction area could be washed into drainages during storms and may affect areas downstream of the Proposed Project. Adverse effects on water quality could indirectly impact species that use riparian areas within the watershed by affecting the food web interactions (e.g., abundance of insects or other prey) or through biomagnification (i.e., the build up of pesticides to toxic levels in higher trophic levels). With implementation of standard BMPs, this impact is expected to be less than significant.

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 corridor, or impede the use of native wildlife nursery sites?

Overall, the Etiwanda Substation occurs within an urban area. Although there are nearby open areas, once constructed, powerlines would not obstruct the movement of wildlife because they would be elevated and wildlife would be able to move along the dirt access roads underneath the powerlines. Additionally, the Etiwanda Substation would not be expected to disrupt wildlife movement along Lytle Creek, which is approximately one mile from the nearest Proposed Project feature (i.e., Alternative Subtransmission Source Line Route).

During active construction, wildlife movement may be deterred by noise and human activity; however, most wildlife movement would occur at night, while construction activities would occur during the day. Additionally, wildlife is likely somewhat acclimated to noise and human activity due to urbanization in the area. Construction activities would also be temporary in nature. Therefore, construction impacts on wildlife movement would be considered adverse, but less than significant.

There are no native wildlife nursery sites within the survey area.

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

No trees protected by the County of San Bernardino or the City of Fontana would be impacted by the Etiwanda Substation.

Operation Impacts

Operational impacts have been discussed separately for each Project component. Operational impacts include indirect impacts on the adjacent remaining habitat due to operation of the Project (e.g., human activity, indirect lighting). Operational impacts may induce changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

This discussion does not include impacts on a portion of the Preferred and Alternative Substation sites, the Alder Substation, or the six potential staging areas. The Proposed

Telecommunications Route follows the path of the Preferred Subtransmission Source Line Route and is, therefore, not discussed separately.

Preferred Subtransmission Source Line Route and Proposed Telecommunications Route

Operation of the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Although noise levels may increase over present levels due to normal operation of the Proposed Project, the Project noise increase would be minor. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. However, this impact is considered adverse but less than significant.

No dust or urban pollutants would be expected during operation of the Proposed Project; therefore, there would be no impact.

There would be no landscaping associated with this component of the Proposed Project. Therefore, there would be no impact as a result of invasive species.

There would be no additional lighting associated with the Preferred Subtransmission Source Line Route and Proposed Telecommunications Route. Therefore, there would be no impact as a result of night lighting.

Following Project implementation, human activity is not expected to substantially increase. Additionally, the Proposed Project occurs within an urban context and therefore, wildlife in the vicinity is expected to be somewhat tolerant of human activity; therefore, this impact would be considered less than significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

No additional operational impacts on riparian habitat or other sensitive natural community would occur as a result of the Proposed Project.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No additional operational impacts on resources protected by Section 404 of the Clean Water Act would occur as a result of the Proposed Project.

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 corridor, or impede the use of native wildlife nursery sites?

No additional operational impacts on wildlife movement would occur as a result of the Proposed Project. No native wildlife nursery sites are present in the survey area.

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

No additional operational impacts on protected trees would occur as a result of the Proposed Project.

Preferred Substation Site

Operation of the Preferred Substation site has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Although noise levels may increase over present levels due to normal operation of the Proposed Project, the Project noise increase would be minor. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. However, this impact is considered adverse but less than significant.

No dust or urban pollutants would be expected during operation of the Proposed Project. Therefore, there would be no impact.

There would be landscaping and irrigation around the full perimeter of the Preferred Substation site to filter views for the surrounding community. SCE shall submit a Landscape Plan to the local jurisdiction for review. The review shall ensure that no invasive, exotic plant species are used in any proposed landscaping adjacent to open space and that suitable substitutes are proposed.

The Preferred Substation site would include night lighting, which may result in an indirect impact on the open space habitat remaining adjacent to the proposed development. Night lighting may impact the behavioral patterns of nocturnal and crepuscular (i.e., active at dawn and dusk) wildlife adjacent to the lighted areas. Of greatest concern is the effect on small, ground-dwelling animals that use the darkness to hide from predators and owls, which are specialized night foragers. Night lighting will be directed away from open space areas and shielding will be incorporated into the final Project design to ensure ambient lighting is not increased; therefore, impacts would be considered adverse but less than significant.

Following Project implementation, human activity is not expected to substantially increase. Additionally, the Proposed Project occurs within an urban context so wildlife in the vicinity is expected to be somewhat tolerant of human activity; therefore, this impact would be considered less than significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

No additional operational impacts on riparian habitat would occur as a result of the Proposed Project.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No additional operational impacts on resources protected by Section 404 of the Clean Water Act would occur as a result of the Proposed Project.

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 corridor, or impede the use of native wildlife nursery sites?

No additional operational impacts on wildlife movement would occur as a result of the Proposed Project. No native wildlife nursery sites are present in the survey area.

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

No additional operational impacts on protected trees would occur as a result of the Proposed Project.

Etiwanda Substation

Operation of the Etiwanda Substation has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

The Etiwanda Substation is an existing facility. Any additional operational noise levels, dust, urban pollutants, landscaping, night lighting, or human activity is not expected to be significantly greater than currently exists at the site.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

No additional operational impacts on riparian habitat would occur as a result of the Proposed Project.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No additional operational impacts on resources protected by Section 404 of the Clean Water Act would occur as a result of the Proposed Project.

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 corridor, or impede the use of native wildlife nursery sites?

No additional operational impacts on wildlife movement would occur as a result of the Proposed Project. No native wildlife nursery sites are present in the survey area.

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

No additional operational impacts on protected trees would occur as a result of the Proposed Project.

4.4.7 Applicant Proposed Measures

This section presents APMs to reduce impacts of the Proposed Project on biological resources.

Table 4.4-6 Biological Resource Applicant Proposed Measures

Applicant Proposed Measure	Description
APM-BIO-01 Migratory Bird Treaty Act (MBTA) and Nesting Raptors	In order to avoid impacts on nesting birds and raptors (common or special status), Project initiation shall be scheduled outside the breeding season (i.e., March 15–September 15 for nesting birds; February 1–June 30 for nesting raptors). If Project timing requires that work be initiated during this time period, a pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within 7 days prior to clearing of any vegetation or any work within 500 feet of construction areas. If the Biologist does not find any active nests within the impact area, the vegetation clearing/construction work shall be allowed to proceed. If the Biologist finds an active nest within the construction area and determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist will delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. The active site will be protected until nesting activity has ended to ensure compliance with the MBTA and California Fish and Game Code. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants.
APM-BIO-02 Riversidean Alluvial Fan Sage Scrub, Disturbed Riversidean Alluvial Fan Sage Scrub, Disturbed Riversidean Sage Scrub, and Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub	Project impacts on sage scrub vegetation types would be avoided and/or minimized to the maximum extent practicable. Permanent impacts to disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, and annual grassland/disturbed Riversidean alluvial fan sage scrub vegetation would be mitigated at a minimum replacement ratio of 1:1. Residual temporary impacts on undisturbed/disturbed Riversidean alluvial fan sage scrub would be restored on site and/or mitigated at a replacement ratio of 1:1. Permanent impacts on undisturbed Riversidean alluvial fan sage scrub would be mitigated at a replacement ratio of up to 3:1. Final compensation ratios for impacts to Riversidean alluvial fan sage scrub would be determined in consultation with USFWS and CDFG. A detailed restoration program shall be prepared for approval by SCE and the appropriate resource agencies. Restoration shall consist of seeding and planting containers of appropriate Riversidean alluvial fan sage scrub species. The program shall include, at a minimum, the following items: ▪ Responsibilities and qualifications of the personnel to implement and supervise the plan. ▪ Site selection.

Table 4.4-6 Biological Resource Applicant Proposed Measures

Applicant Proposed Measure	Description
	▪ Site preparation and planting implementation. ▪ Schedule. ▪ Maintenance plan/guidelines. ▪ Monitoring plan. ▪ Long-term preservation. Additionally, the grading limits shall be clearly marked, and temporary fencing or other appropriate markers shall be placed around any sage scrub vegetation adjacent to work areas prior to the commencement of any ground-disturbing activity or native vegetation removal. No construction access, parking, or storage of equipment or materials shall be allowed within the marked areas. SCE shall be fully responsible for implementing the Riversidean Alluvial Fan Sage Scrub Revegetation Program until the restoration areas have met the success criteria outlined in the program. SCE and the appropriate resource agencies shall have final authority over mitigation area sign-off. The site shall be monitored and maintained for a suitable number of years to ensure successful establishment of Riversidean alluvial fan sage scrub habitat within the restored and created areas, as determined by the resource agencies.

4.4.8 Alternatives

No Impact

Construction and operation of the Proposed Project would not result in impacts for the CEQA threshold discussed below.

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?

There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan within the Project area. Therefore, there would be no impacts.

Construction Impacts

Construction impacts have been discussed separately for each Project component. Construction impacts may include both direct and indirect impacts on biological

resources. Direct construction impacts involve the initial loss of habitats due to grading, construction, and construction related activities. Indirect construction impacts are those that would be related to impacts on the adjacent remaining habitat due to construction activities (e.g., noise, dust).

This discussion does not include impacts on a portion of the Alternative Substation site, the Alder Substation, or the six potential staging areas.

Alternative Subtransmission Source Line Route

Construction of the Alternative Subtransmission Source Line Route has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Construction of the Alternative Subtransmission Source Line Route would result in a minimal loss of moderate to high-quality habitat for common wildlife species (i.e., a total of 17.85 acres of habitat including Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, disturbed mule fat scrub, annual grassland, annual grassland/disturbed Riversidean alluvial fan sage scrub, vineyards, ruderal, and ornamental [see below for discussion of vegetation impacts]). The loss of limited wildlife habitat is considered an adverse but less than significant impact. Construction of the Alternative Subtransmission Source Line Route may result in the loss of active bird or raptor nests. The MBTA protects migratory birds, their nests, and eggs. If construction is initiated outside the nesting season (the nesting season is generally March 15 to September 15 for migratory birds and February 1 to June 30 for raptors), there would be no impact on nesting birds/raptors and no APMs would be required. If construction is initiated during the nesting bird/raptor season, the impact on an active nest would be potentially significant. Implementation of APM-BIO-01 would reduce this impact to a less than significant level.

The Alternative Subtransmission Source Line Route would impact four individuals of Plummer's mariposa lily; no Parry's spineflower populations would be impacted (Figure 4.4-13I). This impact would be considered adverse, but less than significant since the loss of these individuals would not adversely affect the regional population of these species. However, complete avoidance of the Plummer's mariposa lily is recommended.

The Delhi sands flower-loving fly has limited potential to occur along the Alternative Subtransmission Source Line Route. Protocol level surveys are currently being conducted within potentially suitable habitat in the survey area. If the Delhi sands flower-loving fly is not observed during protocol level surveys, there would be no impact and no APMs would be required. If Delhi sands flower-loving fly is observed during protocol level surveys, authorization to proceed with project activities within occupied habitat shall be required from the USFWS through either Section 7 or 10 Consultation. Fly habitat will be marked as "off limits" in construction plans and specifications. The presence of a

Biological Monitor during Project construction would further ensure that any potential impacts to this species are avoided. The mitigation/compensation for the loss of Delhi sands flower-loving fly habitat will be approved with the resource agencies.

The arroyo chub, Santa Ana speckled dace, Santa Ana sucker, arroyo toad, California red legged frog, Sierra Madre yellow-legged frog, southwestern pond turtle, orange-throated whiptail, southern rubber boa, two-striped garter snake, and northern red-diamond rattlesnake are not expected to occur at the Alternative Subtransmission Source Line Route due to lack of suitable habitat or because the survey area is outside of the species' range; therefore, there would be no impact on these species.

The western spadefoot may occur along the Alternative Subtransmission Source Line Route, most likely in the natural segment of Etiwanda Creek between Foothill Boulevard and the southern boundary of the survey area. However, no potential breeding pools were noted during surveys. The Alternative Subtransmission Source Line Route would result in the loss of a limited amount of foraging habitat for this species. This loss would be considered an adverse, but less than significant impact.

The coast horned lizard was observed and coast patch-nosed snake may occur along the Alternative Subtransmission Source Line Route. These species would be most likely to occur in the Riversidean sage scrub and grassland vegetation types in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Swainson's hawk, bald eagle, mountain plover, western yellow-billed cuckoo, long-eared owl, southwestern willow flycatcher, Vermilion flycatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat are not expected to occur along the Alternative Subtransmission Source Line Route either due to lack of suitable habitat or because they are not known to winter in the Project vicinity. Therefore, there would be no impact on these species.

Although there is suitable habitat present along the Alternative Subtransmission Source Line Route, the coastal California gnatcatcher is not expected to occur because it was not observed during protocol level surveys. Therefore, there would be no impact on this species.

Loggerhead shrike was observed, grasshopper sparrow may occur, and tricolored blackbird has a limited potential to occur along the Alternative Subtransmission Source Line Route. All these species have some potential nest in the survey area, either in the Riversidean sage scrub and grassland vegetation types in the survey area. Impacts on active nests would be avoided with implementation of APM-BIO-01. Therefore, there should be no impact on nests of these species.

Oregon vesper sparrow has potential to winter along the Alternative Subtransmission Source Line Route, most likely in the grassland vegetation types. Due to the limited

amount of habitat loss relative to the availability of habitat for this species in the region, impacts on Oregon vesper sparrow would be considered adverse, but less than significant.

Golden eagle, northern harrier, and white-tailed kite have potential to forage along the Alternative Subtransmission Source Line Route but would not be expected to nest in the survey area. The Alternative Subtransmission Source Line Route would result in the loss of approximately 17.15 acres of quality foraging habitat (i.e., sage scrub, mule fat, grassland, ruderal, and vineyard vegetation types) for these species. This loss of foraging habitat for these raptor species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse, but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on raptor foraging habitat would be considered adverse but less than significant.

Although there is suitable habitat present along the Alternative Subtransmission Source Line Route, the burrowing owl is not expected to occur because it was not observed during protocol level surveys. Therefore, there would be no impact on this species.

San Bernardino flying squirrel, pallid San Diego pocket mouse, and Stephens' kangaroo rat are not expected to occur along the Alternative Subtransmission Source Line Route due to lack of suitable habitat or because the survey area is outside the species' range; therefore, there would be no impact on these species.

San Bernardino kangaroo rat is not expected to occur along the Alternative Subtransmission Source Line Route because it was not trapped during protocol level survey efforts. Therefore, there would be no impact on this species.

Pallid bat, Townsend's big-eared bat, western yellow bat, western mastiff bat, and pocketed free-tailed bat have potential to forage along the Alternative Subtransmission Source Line Route. The Alternative Subtransmission Source Line Route would result in the loss of approximately 17.15 acres of quality foraging habitat (i.e., sage scrub, mule fat, grassland, ruderal, and vineyard vegetation types) for these bat species. This loss of foraging habitat for these bat species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on bat foraging habitat would be considered adverse but less than significant.

Limited suitable bat roosting habitat is present along the Alternative Subtransmission Source Line Route. Few bats are expected to roost in the survey area; pallid bat and Townsend's big eared bat have limited potential to roost in old buildings along the Alternative Subtransmission Source Line Route. Due to the limited loss of bat roosts relative to the availability of roosts in the region, impacts on these species would be considered less than significant.

The Alternative Subtransmission Source Line Route would impact occupied habitat for the Los Angeles pocket mouse (Figure 4.4-13A). This impact would be considered

potentially significant; therefore, impacts to the Los Angeles pocket mouse will be avoided to the maximum extent feasible in the final Project design. Habitat areas will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to this species are avoided.

San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, and San Diego desert woodrat were observed in the survey area, and southern grasshopper mouse and American badger may occur in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

The Alternative Subtransmission Source Line Route may impact the following types of vegetation: Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, disturbed Riversidean sage scrub, disturbed mule fat scrub, annual grassland, annual grassland/disturbed Riversidean alluvial fan sage scrub, vineyards, ruderal, and ornamental. In addition, the Alternative Subtransmission Source Line Route may impact disturbed, developed, developed/ornamental, and developed/ruderal areas, and a flood-control channel. A total of 25.81 acres will be impacted by the Alternative Subtransmission Source Line Route. These impacts are shown in Figure 4.4-12 and summarized in Table 4.4.7.

Table 4.4.7 Impacts Resulting from the Alternative Subtransmission Source Line Route

Vegetation Type or Other Area	Existing (Acres)	Impact (Acres)
Riversidean Alluvial Fan Sage Scrub	1.43	0.23
Disturbed Riversidean Alluvial Fan Sage Scrub	9.05	1.65
Disturbed Riversidean Sage Scrub	0.70	0.15
Disturbed Mule Fat Scrub	0.42	0.06
Annual Grassland	8.63	1.55
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub	9.98	1.12
Vineyards	6.41	1.36
Ruderal	68.66	11.03

Table 4.4.7 Impacts Resulting from the Alternative Subtransmission Source Line Route

Vegetation Type or Other Area	Existing (Acres)	Impact (Acres)
Ornamental	3.73	0.70
Disturbed	2.38	0.61
Developed	26.71	2.84
Developed/Ornamental	16.54	3.83
Developed/Ruderal	2.07	0.55
Flood-Control Channel	0.72	0.13
Total	**157.43**	**25.81**

Riversidean alluvial fan sage scrub (mapped as Riversidean alluvial fan sage scrub, disturbed Riversidean alluvial fan sage scrub, and annual grassland/disturbed Riversidean alluvial fan sage scrub) and disturbed Riversidean sage scrub are special status vegetation types. Impacts to these vegetation types would be considered potentially significant. Direct grading and construction impacts to these vegetation types would be avoided to the maximum extent feasible in the final Project design. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to these vegetation types are avoided. With implementation of these measures, there would be no impact on these vegetation types. If impacts to these vegetation types are unavoidable, implementation of APM-BIO-02 would reduce this impact to less than significant.

Disturbed mule fat scrub occurs within an area delineated as under the jurisdiction of the USACE and the CDFG. Direct grading and construction impacts to this vegetation type would be avoided to the maximum extent feasible in the final Project design. Native vegetation will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to this vegetation type are avoided. With implementation of these measures, there would be no impact on this vegetation type. If impacts to disturbed mule fat scrub are unavoidable mitigation associated with a permit/agreement from the CDFG would reduce this impact to less than significant.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

The Alternative Subtransmission Source Line Route crosses over the flood-control channel in portions of the survey area. The flood-control channel and other features in the

survey area may be under the jurisdiction of the USACE and/or CDFG (Figure 4.4-6). The Alternative Subtransmission Source Line Route, as proposed, is not expected to cause impacts to any jurisdictional resources (with the exception of the jurisdictional area within the Etiwanda Substation). Direct grading and construction impacts on these areas will be avoided as the subtransmission line routes will span the flood-control channel so that there will be no direct or indirect impacts; therefore, impacts are considered less than significant. If Project design changes and impacts to these areas are unavoidable, then permits/agreements from the USACE, the CDFG, and the RWQCB shall be obtained for direct and indirect impacts on areas within these agencies' jurisdictions would reduce the impact to less than significant.

During construction, excess silt, petroleum, or chemicals on the soil surface within the construction area could be washed into drainages during storms and may affect areas downstream of the project area. Adverse effects on water quality could indirectly impact species that use riparian areas within the watershed by affecting the food web interactions (e.g., abundance of insects or other prey) or through biomagnification (i.e., the build up of pesticides to toxic levels in higher trophic levels). With implementation of BMPs, this impact is expected to be less than significant.

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 corridor, or impede the use of native wildlife nursery sites?

Overall, the Alternative Subtransmission Source Line Route occurs within an urban area. The Alternative Subtransmission Source Line Route would be constructed within or adjacent to existing streets, developed areas, or existing powerlines. Although some of these areas are adjacent to open space (e.g., a segment of the Alternative Subtransmission Source Line Route over the natural segment of Etiwanda Creek), once constructed, powerlines would not obstruct the movement of wildlife because they would be elevated and wildlife would be able to move along the dirt access roads underneath the powerlines. Additionally, the Alternative Subtransmission Source Line Route would not be expected to disrupt wildlife movement along Lytle Creek, which is approximately one mile from the nearest Proposed Project feature (i.e., Alternative Subtransmission Source Line Route).

Construction activities to install the Alternative Subtransmission Source Line Route could temporarily disrupt local wildlife movement along the natural segment of Etiwanda Creek between Foothill Boulevard and the Etiwanda Substation because it would remove habitat and create dust and noise in this segment of the proposed impact area. This impact is expected to be adverse but less than significant because the impact area is limited to 18 feet wide while the creek width ranges from 60 or 100 feet wide (between Arrow Route and Napa Street) and 600 feet or greater along other less constrained portions of this segment of the creek; therefore, wildlife could continue to move along the creek in natural habitats adjacent to the proposed impact area. During active construction, wildlife movement may be deterred by noise and human activity; however, most wildlife movement would occur at night, while construction activities would occur during the day.

Additionally, wildlife in this segment of the creek is likely somewhat acclimated to noise and human activity due to the extensive urbanization and constrained nature of the creek along this segment. Construction activities would also be temporary in nature. Therefore, construction impacts on wildlife movement would be considered adverse, but less than significant.

There are no native wildlife nursery sites within the survey area.

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

Trees protected by the County of San Bernardino or City of Fontana were not identified in the Project area.

Alternative Substation Site

Construction of the Alternative Substation site has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Construction of the Alternative Substation site may result in the loss of active bird nests. The MBTA protects migratory birds, their nests, and eggs. If construction is initiated outside the nesting season (the nesting season is generally March 15 to September 15 for migratory birds), there would be no impact on nesting birds. If construction is initiated during the nesting bird season, the impact on an active nest would be potentially significant. Implementation of APM-BIO-01 would reduce this impact to a less than significant level.

The Alternative Substation site would impact ten individuals of Plummer's mariposa lily; no Parry's spineflower populations would be impacted within the area that has been surveyed (Figure 4.4-13J). Additional individuals of Plummer's mariposa lily and Parry's spineflower may occur within the area not surveyed; therefore, focused surveys will be completed in spring 2011. If additional Plummer's mariposa lilies are present within the unsurveyed area; it will be assumed that impacts will be less than significant based on the results of the 2010 focused surveys that there would be no more than 1.8 individuals present in the 1.99 acre unsurveyed area. Impacts to Parry's spineflower may be potentially significant since there potentially can be 6,000 individuals within a 2.5 acre area. Therefore, complete avoidance of this species would be recommended and individuals will be marked as "off limits" in construction plans and specifications.

The Delhi sands flower-loving fly is not expected to occur at the Alternative Substation site since suitable habitat is not present at this site. Therefore, there would be no impact on this species.

The arroyo chub, Santa Ana speckled dace, Santa Ana sucker, arroyo toad, California red legged frog, Sierra Madre yellow-legged frog, western spadefoot, southwestern pond turtle, orange-throated whiptail, southern rubber boa, two-striped garter snake, and northern red diamond rattlesnake are not expected to occur at the Alternative Substation site due to lack of suitable habitat or because the survey area is outside of the species' range. Therefore, there would be no impact on these species.

The coast horned lizard was observed in the survey area and coast patch-nosed snake may occur in the survey area. These species would be most likely to occur in the disturbed Riversidean alluvial fan sage scrub at the Alternative Substation site. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Swainson's hawk, bald eagle, mountain plover, western yellow-billed cuckoo, long-eared owl, southwestern willow flycatcher, Vermilion flycatcher, least Bell's vireo, yellow warbler, yellow breasted chat, Oregon vesper sparrow, and tricolored blackbird are not expected to occur at the Alternative Substation site either due to lack of suitable habitat or because they are not known to winter in the Project vicinity; therefore, there would be no impact on these species.

Although there is suitable habitat present along the Alternative Substation site, the coastal California gnatcatcher is not expected to occur because it was not observed during protocol level surveys; therefore, there would be no impact on this species.

Loggerhead shrike was observed in the survey area and grasshopper sparrow may occur at the Alternative Substation site. These species have some potential nest in the survey area, either in the Riversidean sage scrub or grassland vegetation types in the survey area. Impacts on active nests would be avoided with implementation of APM-BIO-01; therefore, there should be no impact on nests of these species.

Golden eagle, northern harrier, and white-tailed kite have potential to forage at the Alternative Substation site but would not be expected to nest in the survey area. The Alternative Substation site would result in the loss of approximately 7.63 acres of quality foraging habitat (i.e., sage scrub and ruderal vegetation types) for these species. This loss of foraging habitat for these raptor species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse, but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region. Therefore, impacts on raptor foraging habitat would be considered adverse but less than significant.

Although there is suitable habitat present along the Alternative Substation site, the burrowing owl is not expected to occur because it was not observed during protocol level surveys; therefore, there would be no impact on this species.

San Bernardino flying squirrel, pallid San Diego pocket mouse, and Stephens' kangaroo rat are not expected to occur at the Alternative Substation site due to lack of suitable

habitat or because the survey area is outside the species' range; therefore, there would be no impact on these species.

San Bernardino kangaroo rat is not expected to occur at the Alternative Substation site because it was not trapped during protocol level survey efforts; therefore, there would be no impact on this species.

Pallid bat, Townsend's big-eared bat, western yellow bat, western mastiff bat, and pocketed free-tailed bat have potential to forage at the Alternative Substation site. The Alternative Substation site would result in the loss of approximately 7.63 acres of quality foraging habitat (i.e., sage scrub and ruderal vegetation types) for these bat species. This loss of foraging habitat for these bat species would cumulatively contribute to the ongoing regional and local loss of foraging habitat. Impacts on foraging habitat would be considered adverse but would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the region; therefore, impacts on bat foraging habitat would be considered adverse but less than significant.

No suitable bat roosting habitat (e.g., old buildings) is present at the Alternative Substation site; therefore, there will be no impacts.

Suitable habitat occurs on the Alternative Substation site for the Los Angeles pocket mouse (Figure 4.4-11J); however, there would be no impact to this species because it was not trapped during focused survey efforts.

San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, and San Diego desert woodrat were observed in the survey area, and southern grasshopper mouse and American badger may occur in the survey area. Due to the limited amount of habitat loss relative to the availability of habitat for these species in the region, impacts on these species would be considered adverse, but less than significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

The Alternative Substation site may impact the following types of vegetation: disturbed Riversidean alluvial fan sage scrub and ruderal. Due to a change in the Project description after surveys had been completed, the vegetation was not mapped on a part of the Alternative Substation site (approximately 1.99 acres). This area will be mapped prior to construction and vegetation impacts will be recalculated. A total of 9.62 acres will be impacted at the Alternative Substation site. These impacts are shown in Figure 4.4-12 and summarized in Table 4.4.8.

Table 4.4.8 Impacts Resulting from the Alternative Substation Site

Vegetation Type or Other Area	Existing (Acres)	Impact (Acres)
Disturbed Riversidean Alluvial Fan Sage Scrub	7.30	7.30
Ruderal	0.33	0.33
Total[1]	**9.62**	**9.62**

[1] The entire Project component is not included within the survey area. A total of 1.99 acres was not surveyed, but will be impacted by the Alternative Substation site.

Impacts on ruderal vegetation would be considered adverse; however, this loss would be limited in relation to the total amount of this vegetation type available in the Project region. Therefore, the loss of this vegetation type would be considered less than significant.

Riversidean alluvial fan sage scrub (mapped as disturbed Riversidean alluvial fan sage scrub) is a special status vegetation type. Impacts to this vegetation type would be considered potentially significant. Direct grading and construction impacts to this vegetation type would be avoided to the maximum extent feasible in the final Project design. Native vegetation will be marked as "off limits" in construction plans and specifications. The presence of a Biological Monitor during Project construction would further ensure that any potential impacts to this vegetation type are avoided. With implementation of these measures, there would be no impact to this vegetation type. If impacts to this vegetation are unavoidable, implementation of APM-BIO-02 would reduce this impact to less than significant.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No areas protected under Section 404 of the Clean Water Act are present within the Alternative Substation site. Therefore, there would be no impact on this resource.

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 corridor, or impede the use of native wildlife nursery sites?

Overall, the Alternative Substation site occurs within an urban area. Although there is a nearby open lot, once constructed, powerlines would not obstruct the movement of wildlife because they would be elevated and wildlife would be able to move along the dirt access roads underneath the powerlines. Additionally, the Alternative Substation site would not be expected to disrupt wildlife movement along Lytle Creek, which is

approximately one mile from the nearest Proposed Project feature (i.e., Alternative Subtransmission Source Line Route).

During active construction, wildlife movement may be deterred by noise and human activity; however, most wildlife movement would occur at night while construction activities would occur during the day. Additionally, wildlife is likely somewhat acclimated to noise and human activity due to urbanization in the area. Construction activities would also be temporary in nature. Therefore, construction impacts on wildlife movement would be considered adverse, but less than significant.

There are no native wildlife nursery sites within the survey area.

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

No trees protected by the County of San Bernardino or the City of Fontana would be impacted by the Alternative Substation site.

Operation Impacts

Operational impacts have been discussed separately for each Project component. Operational impacts include indirect impacts on the adjacent remaining habitat due to operation of the Project (e.g., human activity, indirect lighting). Operational impacts may induce changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

This discussion does not include impacts on a portion of the Alternative Substation site, the Alder Substation, or the six potential staging areas.

Alternative Subtransmission Source Line Route

Operation of the Alternative Subtransmission Source Line Route has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Although noise levels may increase over present levels due to normal operation of the Proposed Project, the Project noise increase would be minor. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. However, this impact is considered adverse but less than significant.

No dust or urban pollutants would be expected during operation of the Proposed Project; therefore, there would be no impact.

There would be no additional lighting associated with the Alternative Subtransmission Source Line Route; therefore, there would be no impact as a result of night lighting.

Following Project implementation, human activity is not expected to substantially increase. Additionally, the Proposed Project occurs within an urban context and therefore, wildlife in the vicinity are expected to be somewhat tolerant of human activity; therefore, this impact would be considered less than significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

No additional operational impacts on riparian habitat would occur as a result of the Proposed Project.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No additional operational impacts on resources protected by Section 404 of the Clean Water Act would occur as a result of the Proposed Project.

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 corridor, or impede the use of native wildlife nursery sites?

No additional operational impacts on wildlife movement would occur as a result of the Proposed Project. No native wildlife nursery sites are present in the survey area.

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

No additional operational impacts on protected trees would occur as a result of the Proposed Project.

Alternative Substation Site

Operation of the Alternative Substation site has the potential to result in impacts for the CEQA thresholds discussed below.

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 CDFG or USFWS?

Although noise levels may increase over present levels due to normal operation of the Proposed Project, the Project noise increase would be minor. Wildlife species stressed by noise may disperse from the habitat located in the vicinity of the Project. However, this impact is considered adverse but less than significant.

No dust or urban pollutants would be expected during operation of the Proposed Project. Therefore, there would be no impact.

The Alternative Substation site would include night lighting, which may result in an indirect impact on the open space habitat remaining adjacent to the proposed development. Night lighting may impact the behavioral patterns of nocturnal and crepuscular (i.e., active at dawn and dusk) wildlife adjacent to the lighted areas. Of greatest concern is the effect on small, ground-dwelling animals that use the darkness to hide from predators and owls, which are specialized night foragers. Night lighting will be directed away from open space areas, and shielding will be incorporated into the final Project design to ensure ambient lighting is not increased; therefore, impacts would be considered adverse but less than significant.

Following Project implementation, human activity is not expected to substantially increase. Additionally, the Proposed Project occurs within an urban context and therefore, wildlife in the vicinity are expected to be somewhat tolerant of human activity. Therefore, this impact would be considered less than significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

No additional operational impacts on riparian habitat would occur as a result of the Proposed Project.

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, and coastal) through direct removal, filling, hydrological interruption, or other means?

No additional operational impacts on resources protected by Section 404 of the Clean Water Act would occur as a result of the Proposed Project.

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 corridor, or impede the use of native wildlife nursery sites?

No additional operational impacts on wildlife movement would occur as a result of the Proposed Project. No native wildlife nursery sites are present in the survey area.

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

No additional operational impacts on protected trees would occur as a result of the Proposed Project.

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Figure 4.4-1 Regional Location

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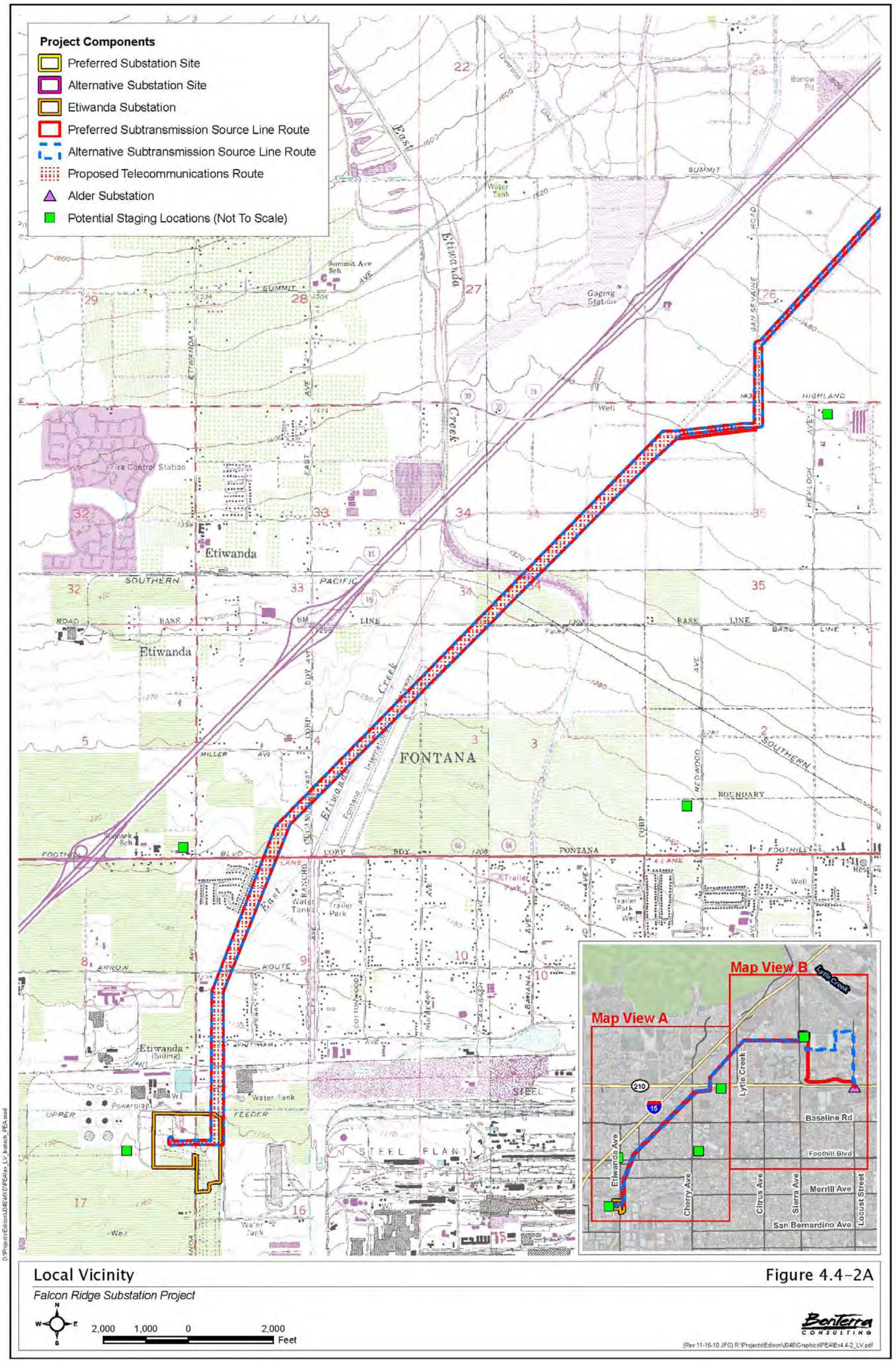
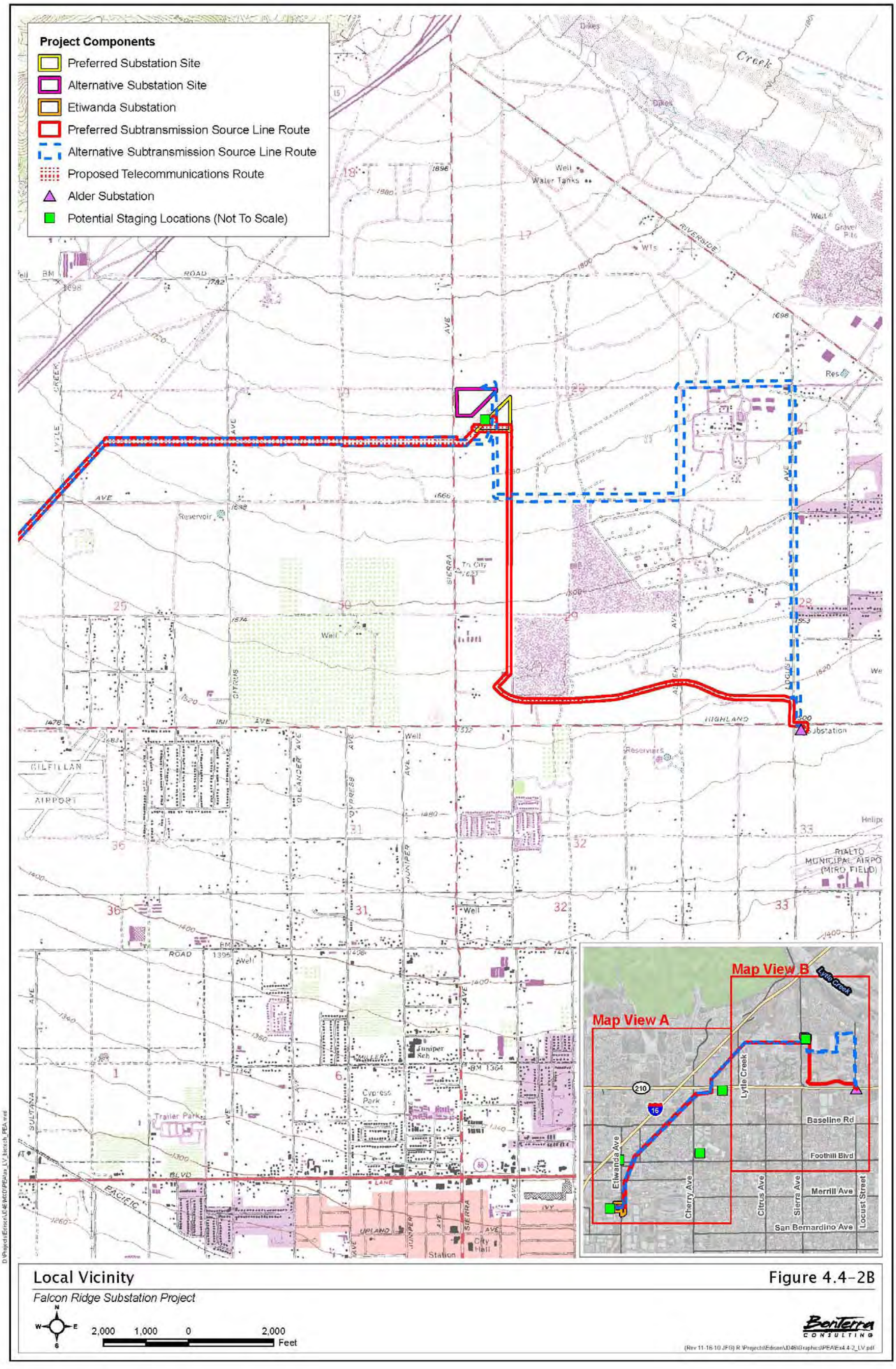

Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Etiwanda
FONTANA
Etiwanda Creek
East Etiwanda Creek
Fontana Interceptor
Etiwanda Substation
Alder Substation
Map View A
Map View B
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
Local Vicinity
Figure 4.4-2A
Falcon Ridge Substation Project
2,000 1,000 0 2,000 Feet
(Rev 11-16-10 JFG) R:\Projects\Edison\J045\Graphics\PEA\Ex4.4-2_LV.pdf

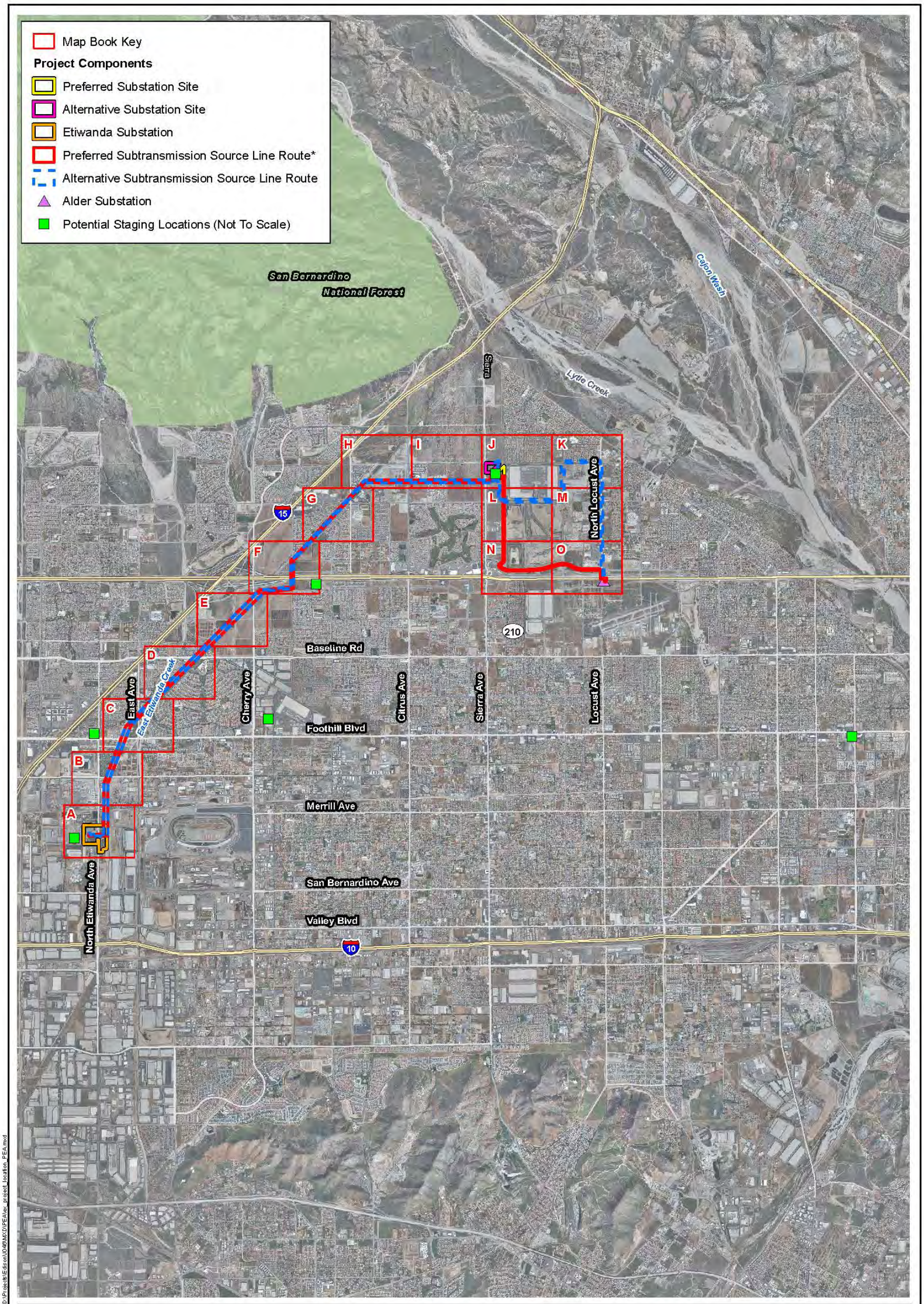


Local Vicinity

Figure 4.4-2B

Falcon Ridge Substation Project

(Rev 11-16-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-2_LV.pdf



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Project Location

Figure 4.4-3

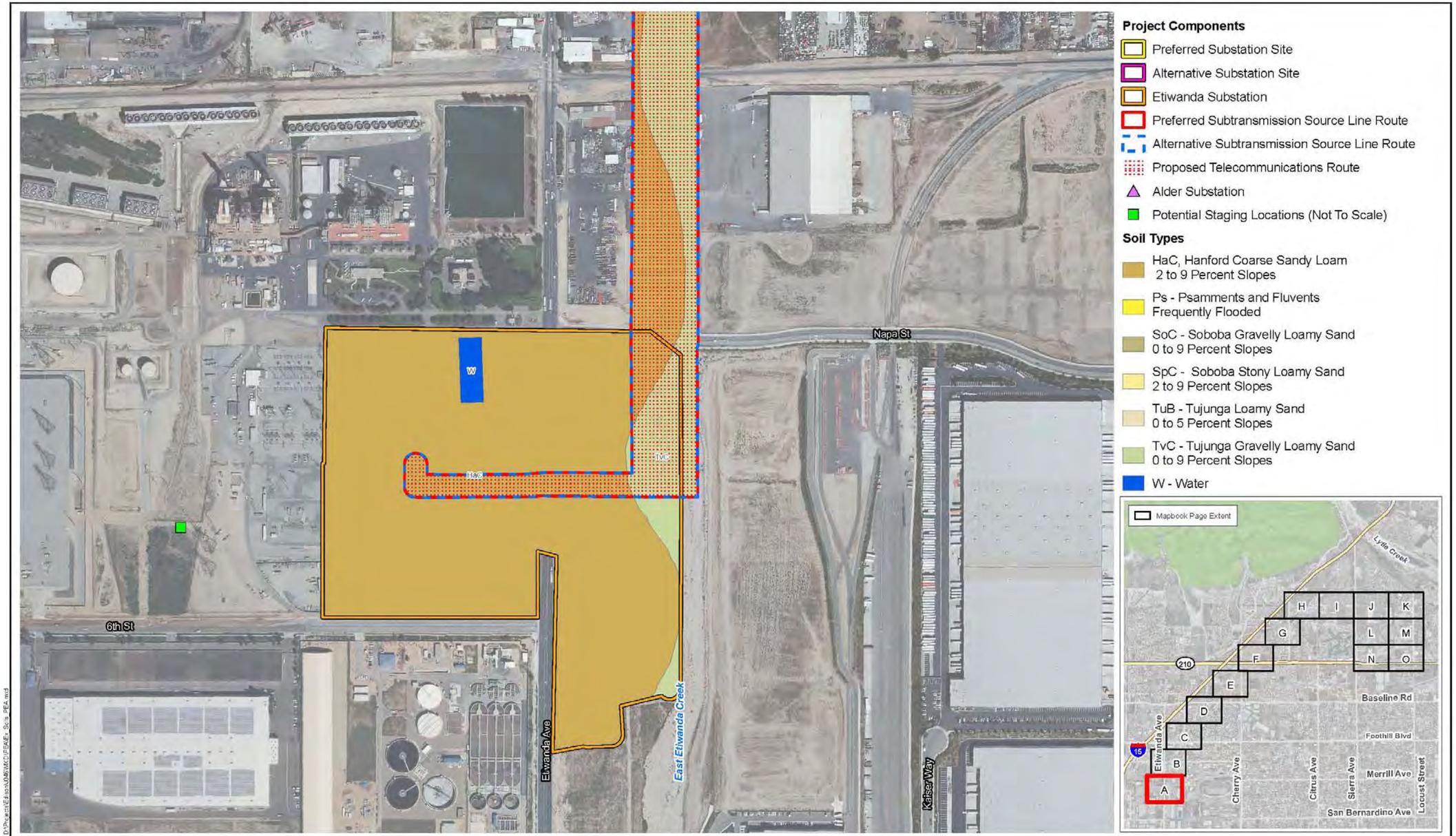
Falcon Ridge Substation Project

N W E S

4,000 2,000 0 4,000 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-3_project_location.pdf

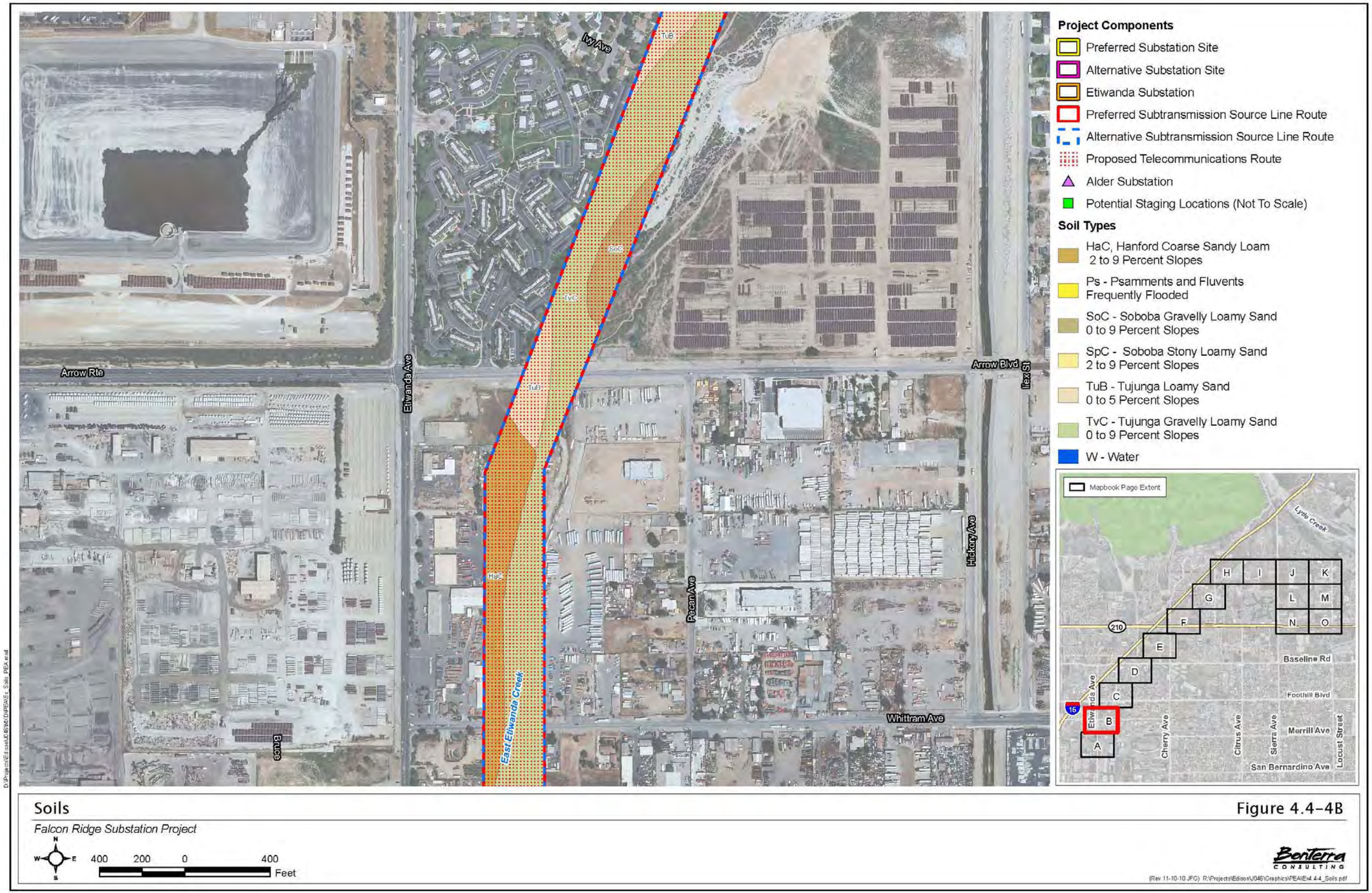


Soils

Figure 4.4-4A

Falcon Ridge Substation Project

400 200 0 400 Feet



Soils

Figure 4.4-4B

Falcon Ridge Substation Project

400 200 0 400 Feet

(Rev 11-10-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-4_Soils.pdf

Soils

Figure 4.4-4C

Falcon Ridge Substation Project

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(Rev 11-10-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ed 4.4_Soils.pdf

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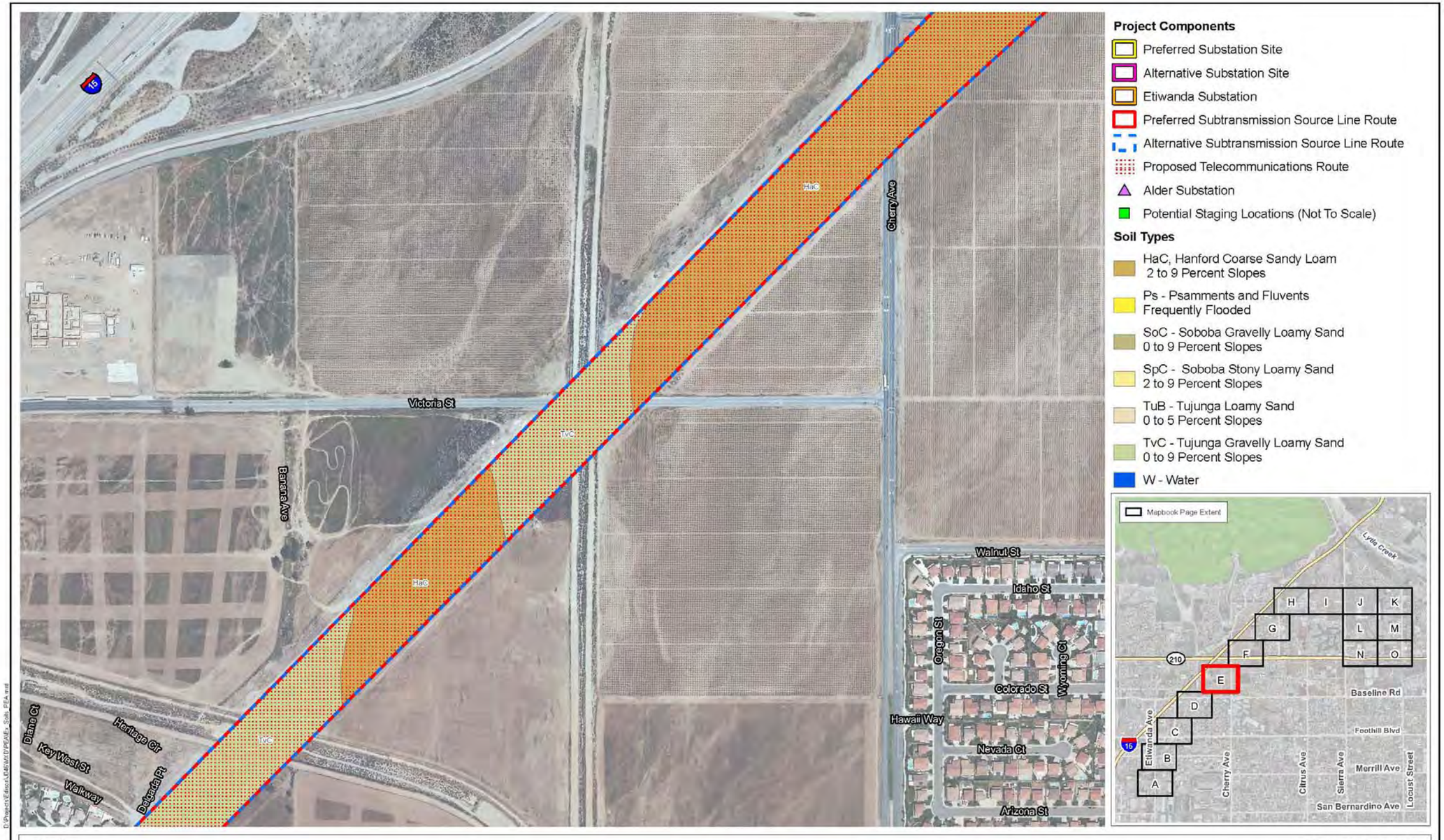
Soils

Figure 4.4-4D

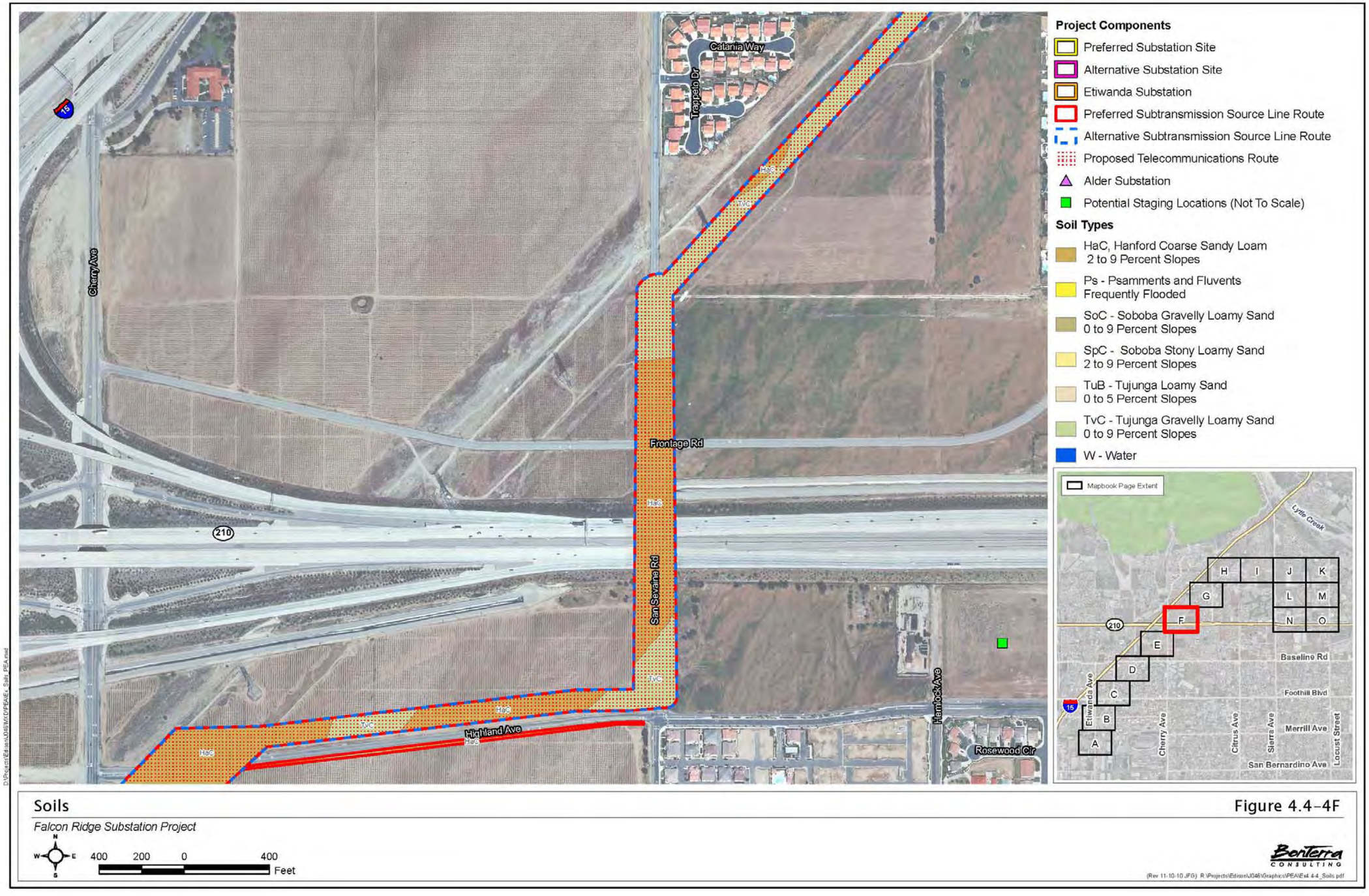
Falcon Ridge Substation Project



Soils

Figure 4.4-4E

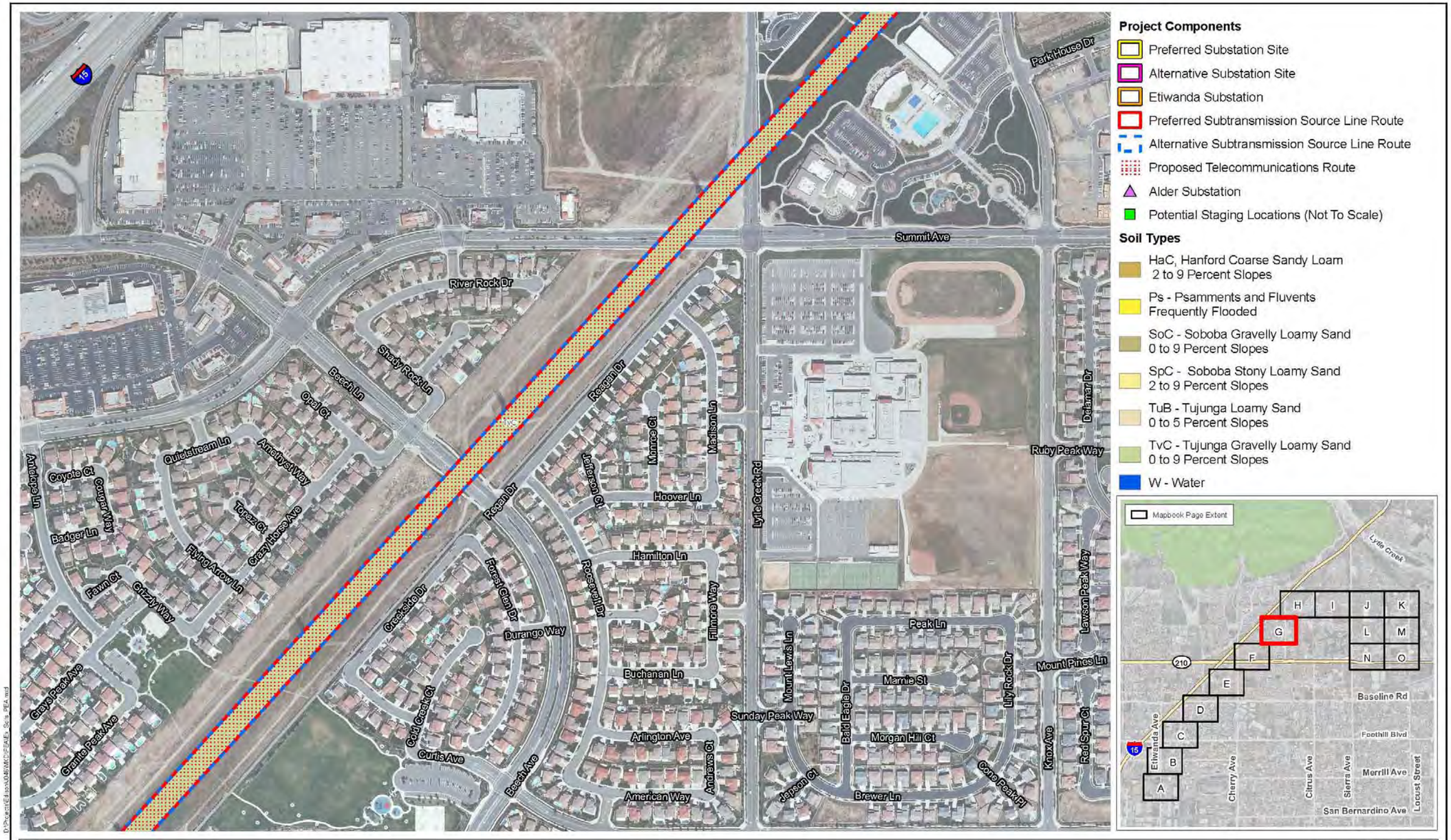
Falcon Ridge Substation Project



Soils

Figure 4.4-4F

Falcon Ridge Substation Project

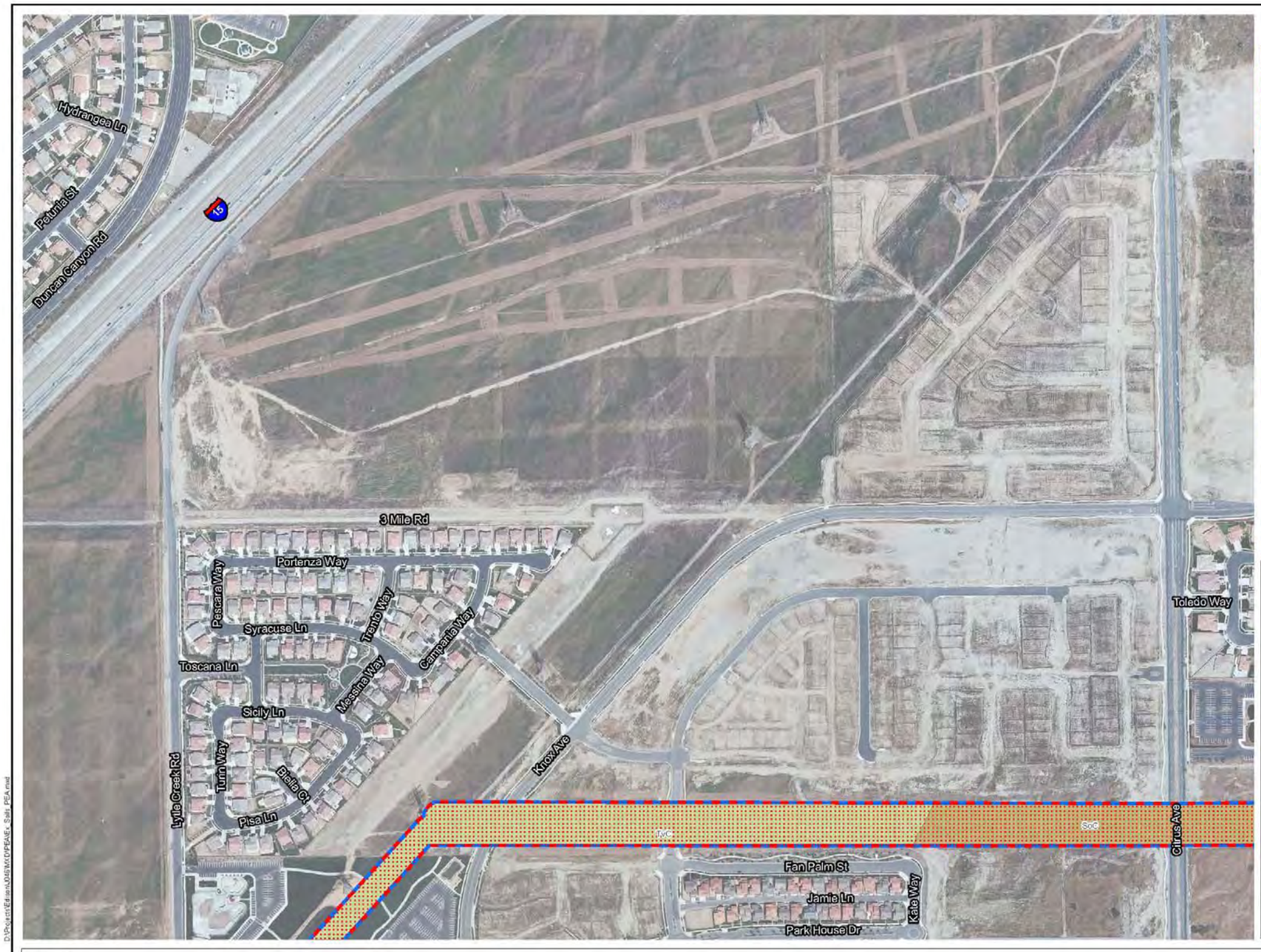


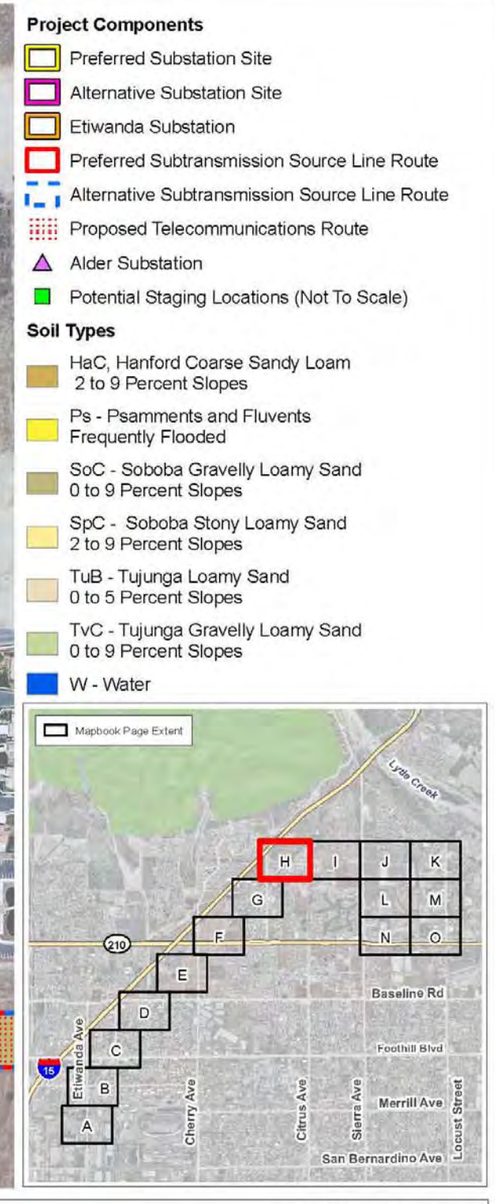
Soils

Figure 4.4-4G

Falcon Ridge Substation Project

400 200 0 400 Feet





Soils

Figure 4.4-4H

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

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(Rev 11-10-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-4_Soils.pdf

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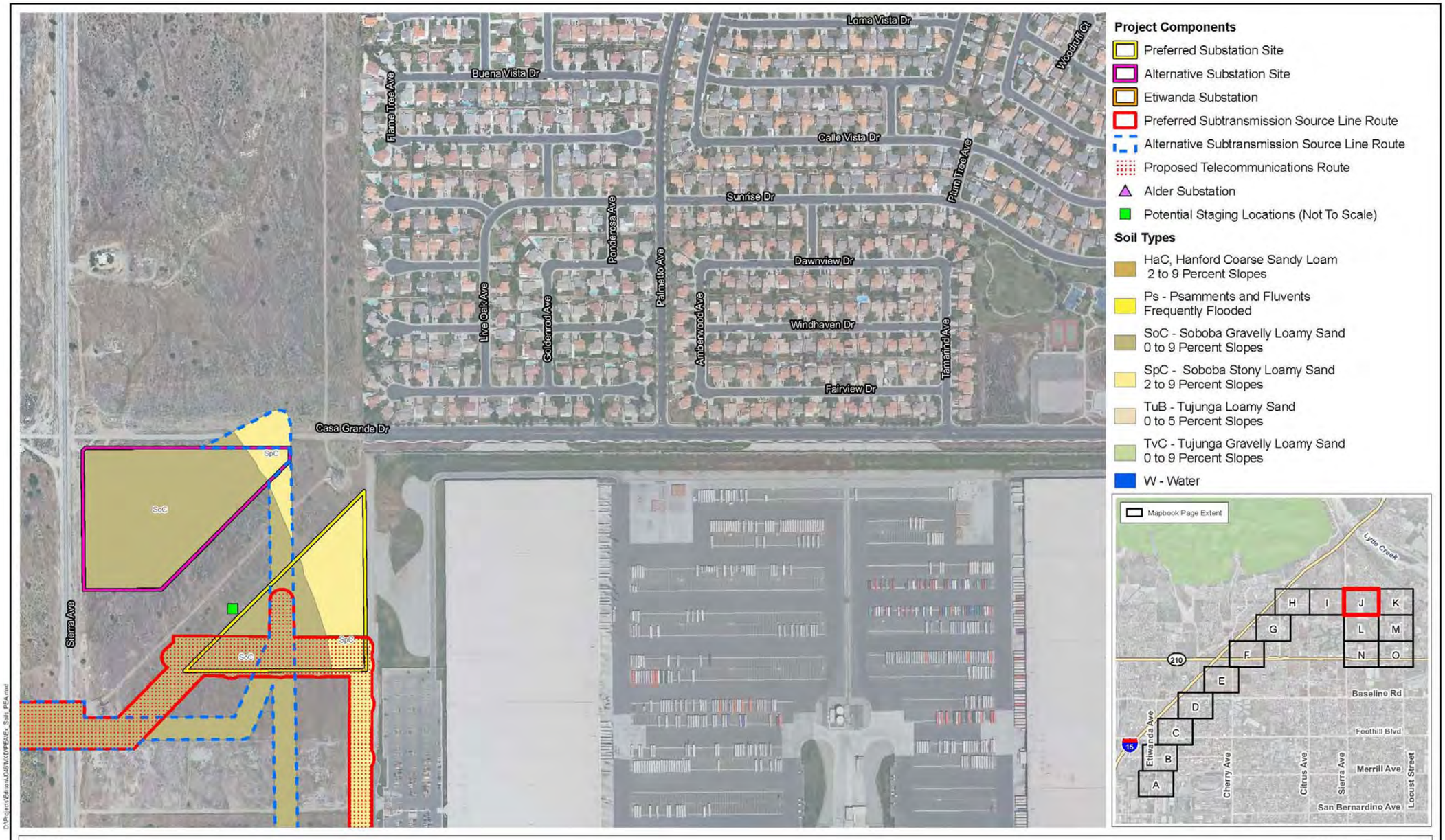
Soils

Figure 4.4-4l

Falcon Ridge Substation Project



Soils

Figure 4.4-4J

Falcon Ridge Substation Project

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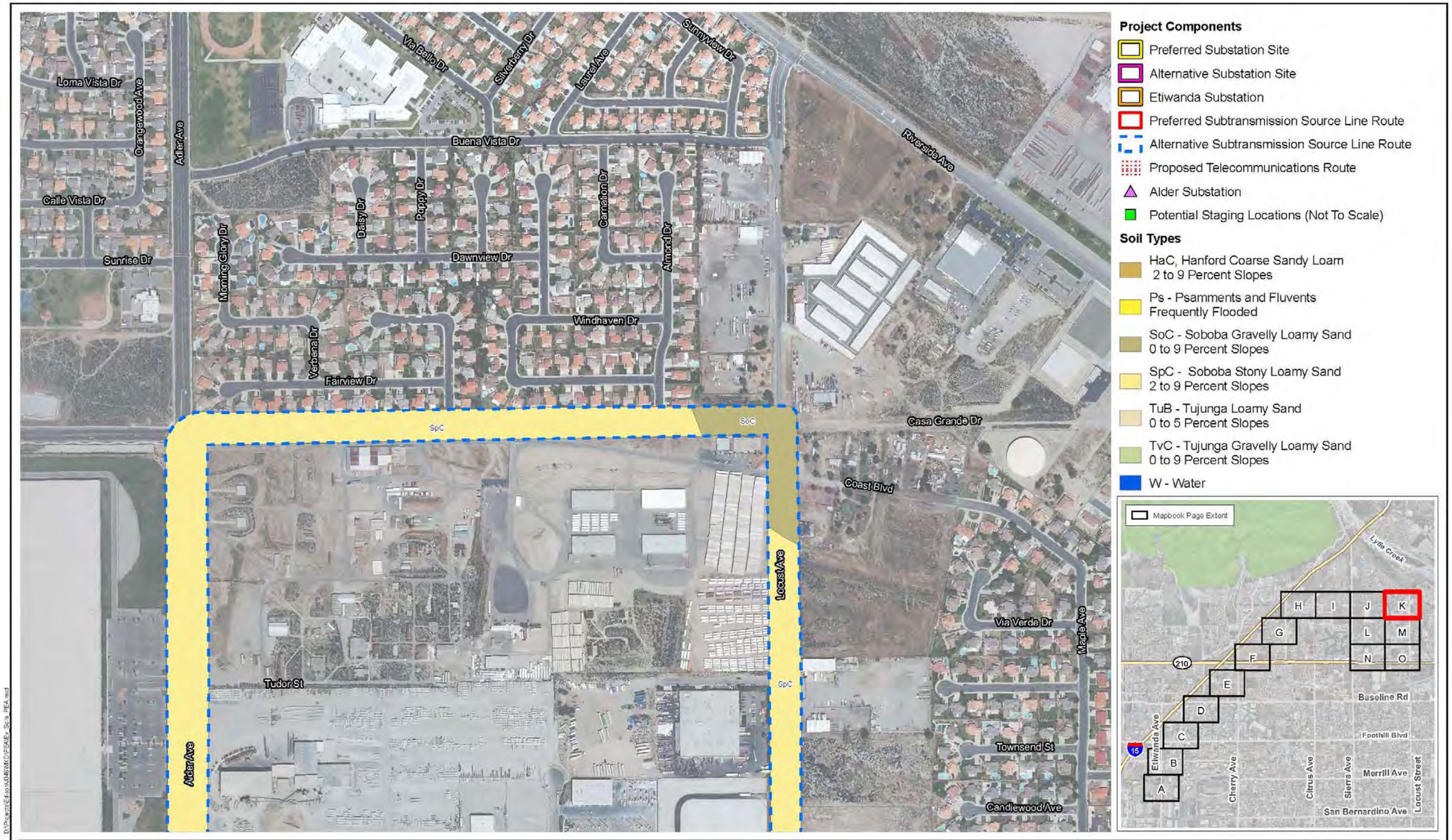
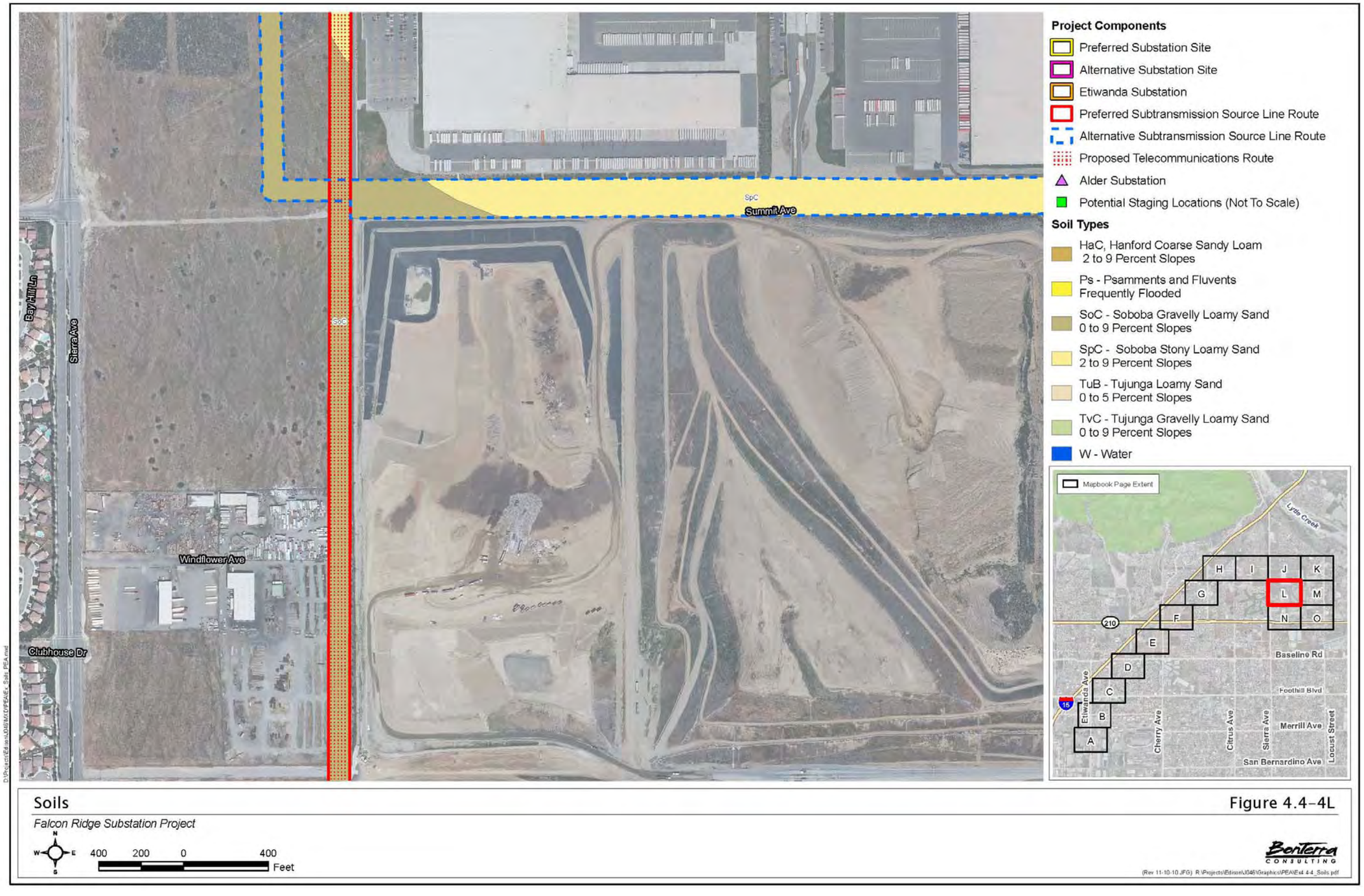
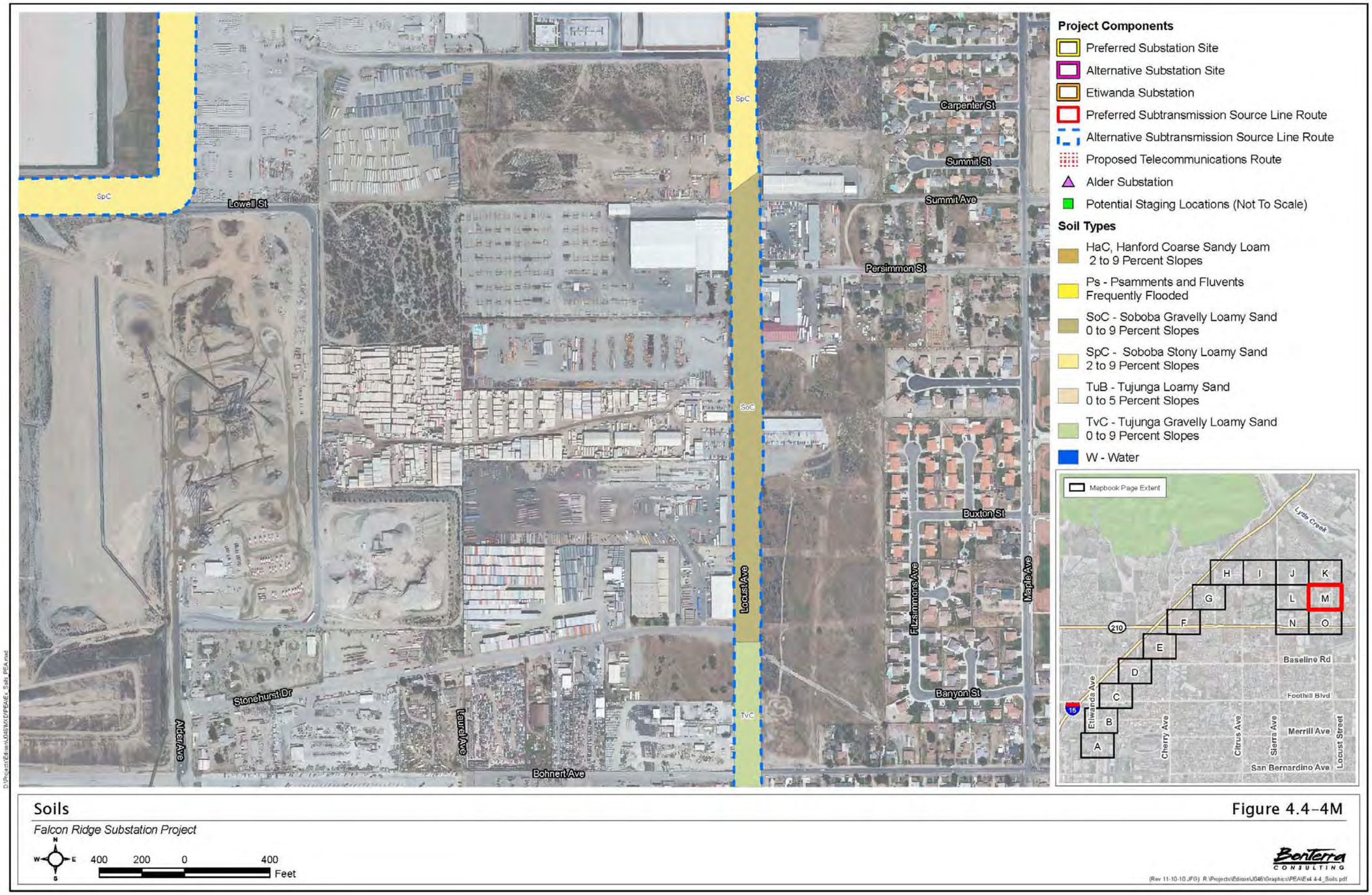


Soils

Figure 4.4-4K

Falcon Ridge Substation Project


Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Soil Types
HaC, Hanford Coarse Sandy Loam 2 to 9 Percent Slopes
Ps - Psamments and Fluvents Frequently Flooded
SoC - Soboba Gravelly Loamy Sand 0 to 9 Percent Slopes
SpC - Soboba Stony Loamy Sand 2 to 9 Percent Slopes
TuB - Tujunga Loamy Sand 0 to 5 Percent Slopes
TvC - Tujunga Gravelly Loamy Sand 0 to 9 Percent Slopes
W - Water
Mapbook Page Extent
Summit Ave
SpC
SoC
Bay Hill Ln
Sierra Ave
Windflower Ave
Clubhouse Dr
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
210
15
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
Soils
Figure 4.4-4L
Falcon Ridge Substation Project
400 200 0 400
Feet
(Rev 11-10-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4 4-4_Soils.pdf



Soils

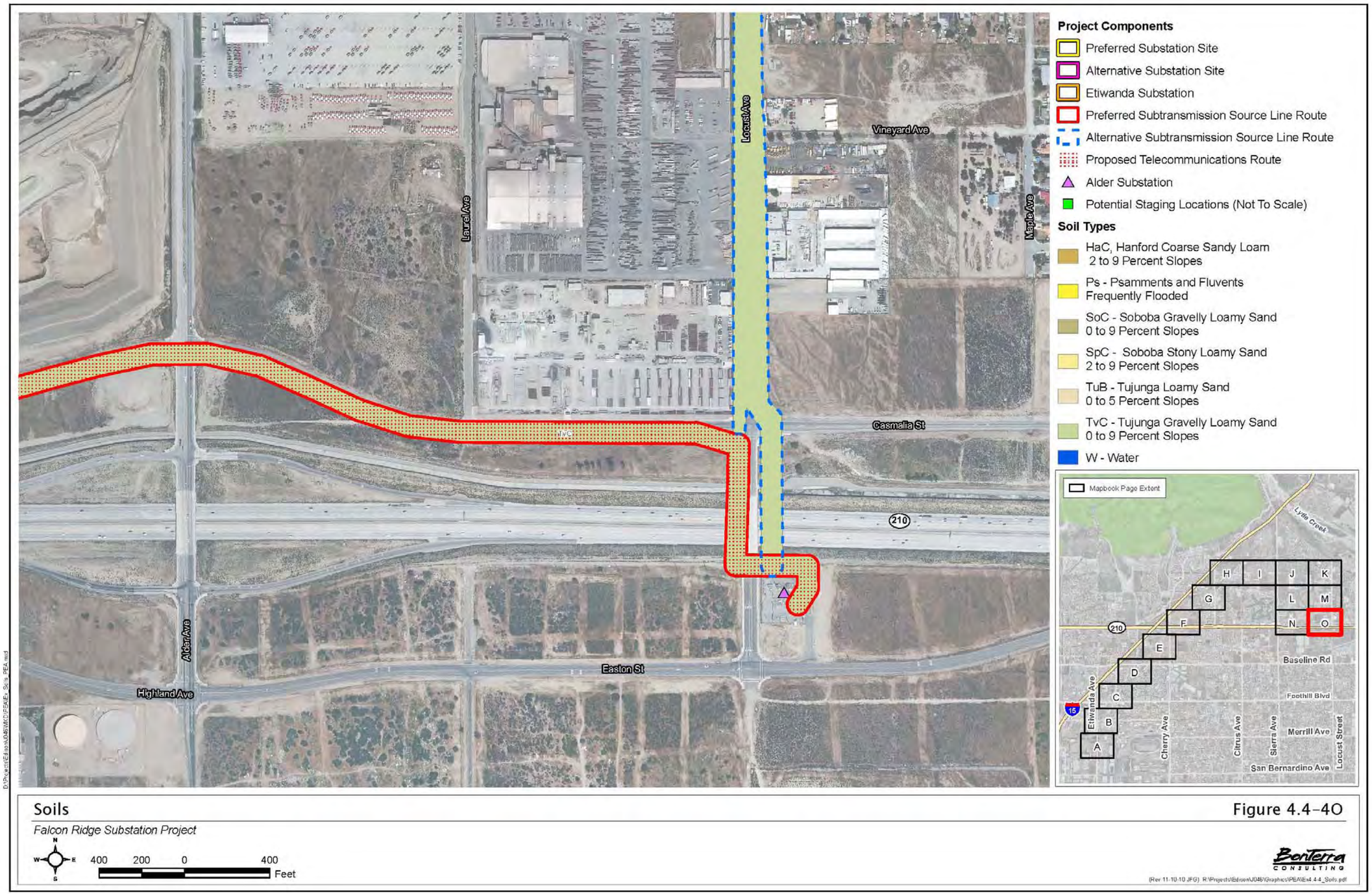
Figure 4.4-4M

Falcon Ridge Substation Project

Soils

Figure 4.4-4N

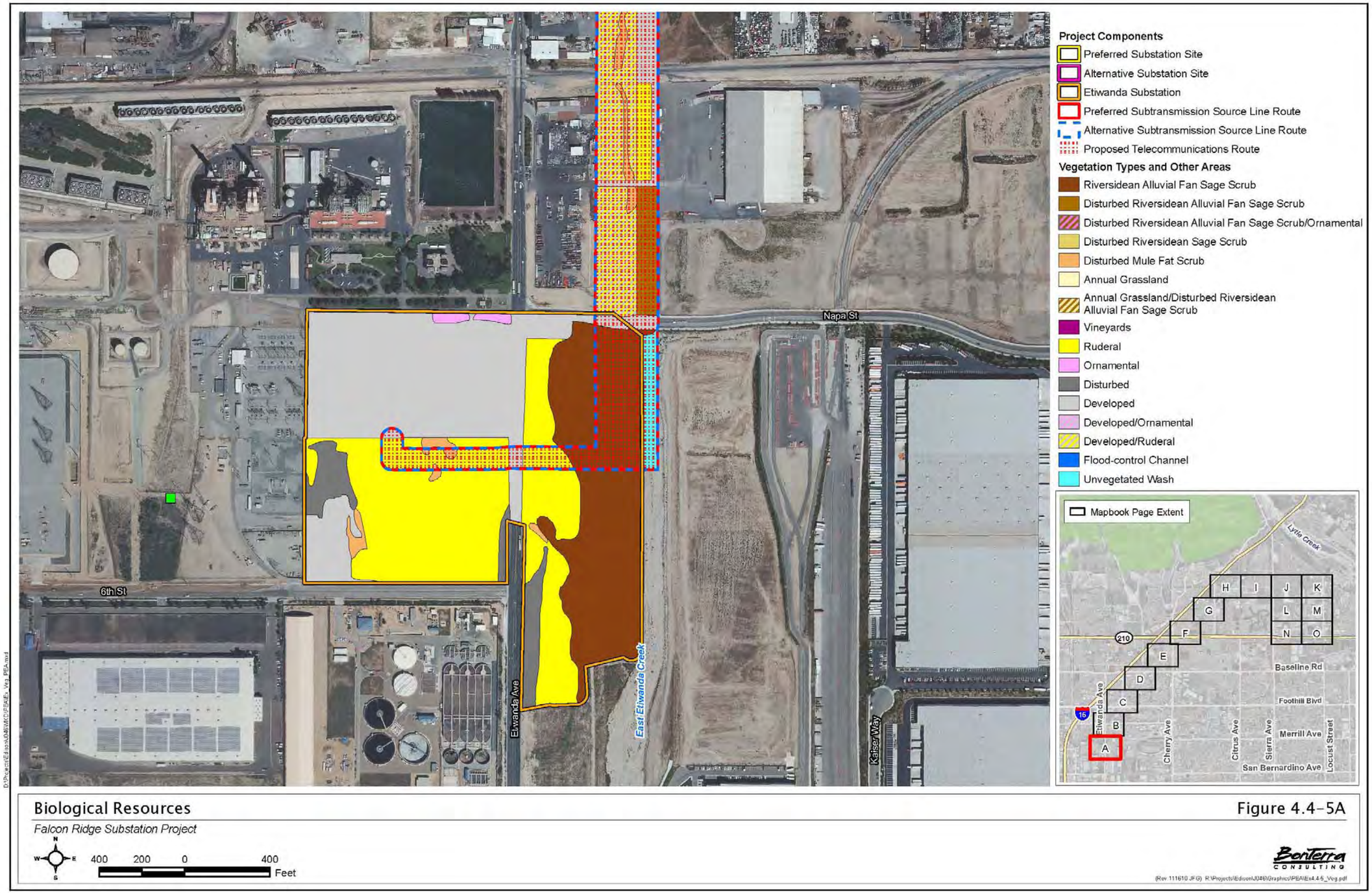
Falcon Ridge Substation Project



Soils

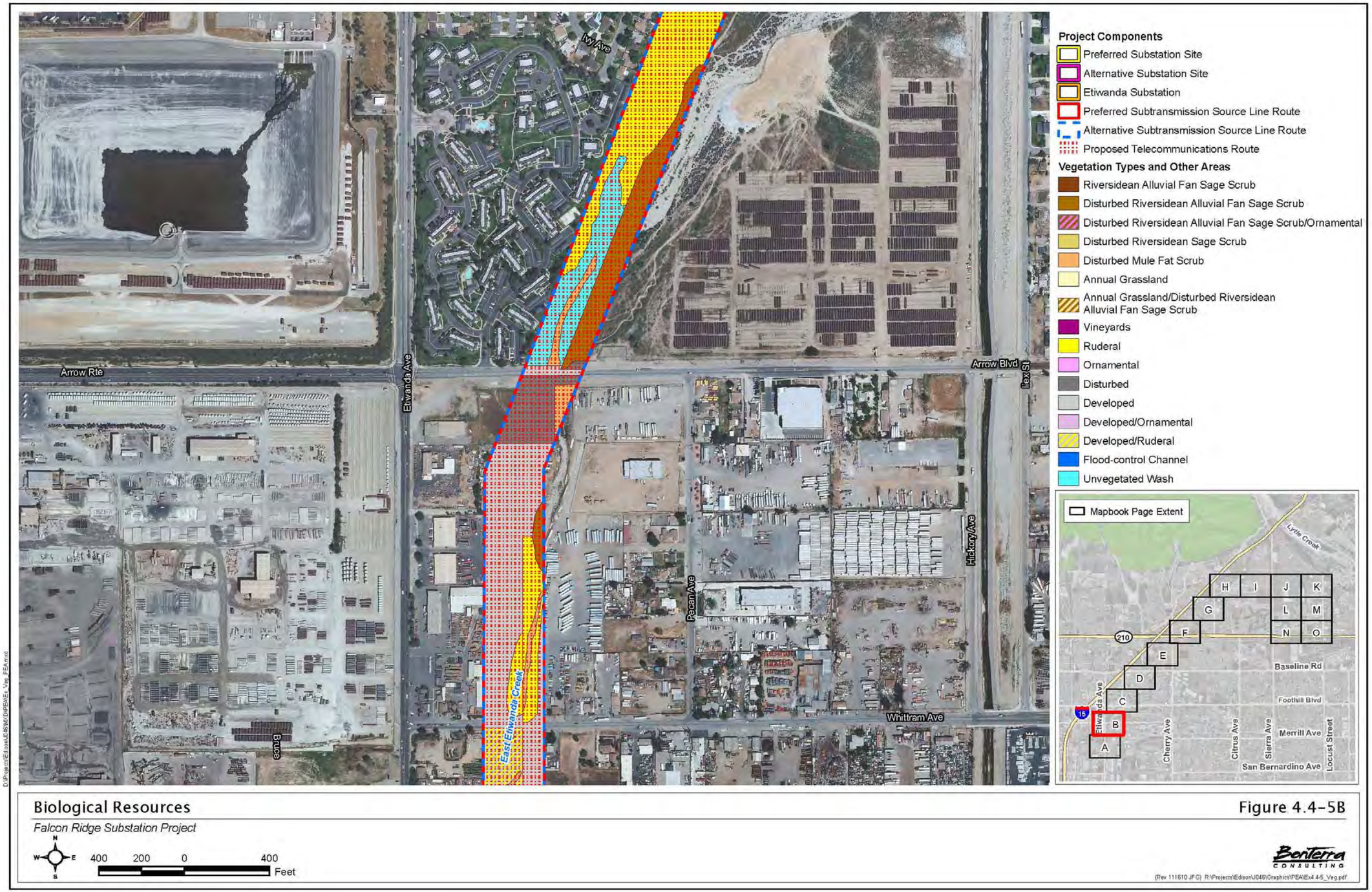
Figure 4.4-40

Falcon Ridge Substation Project



Biological Resources — **Figure 4.4-5A**

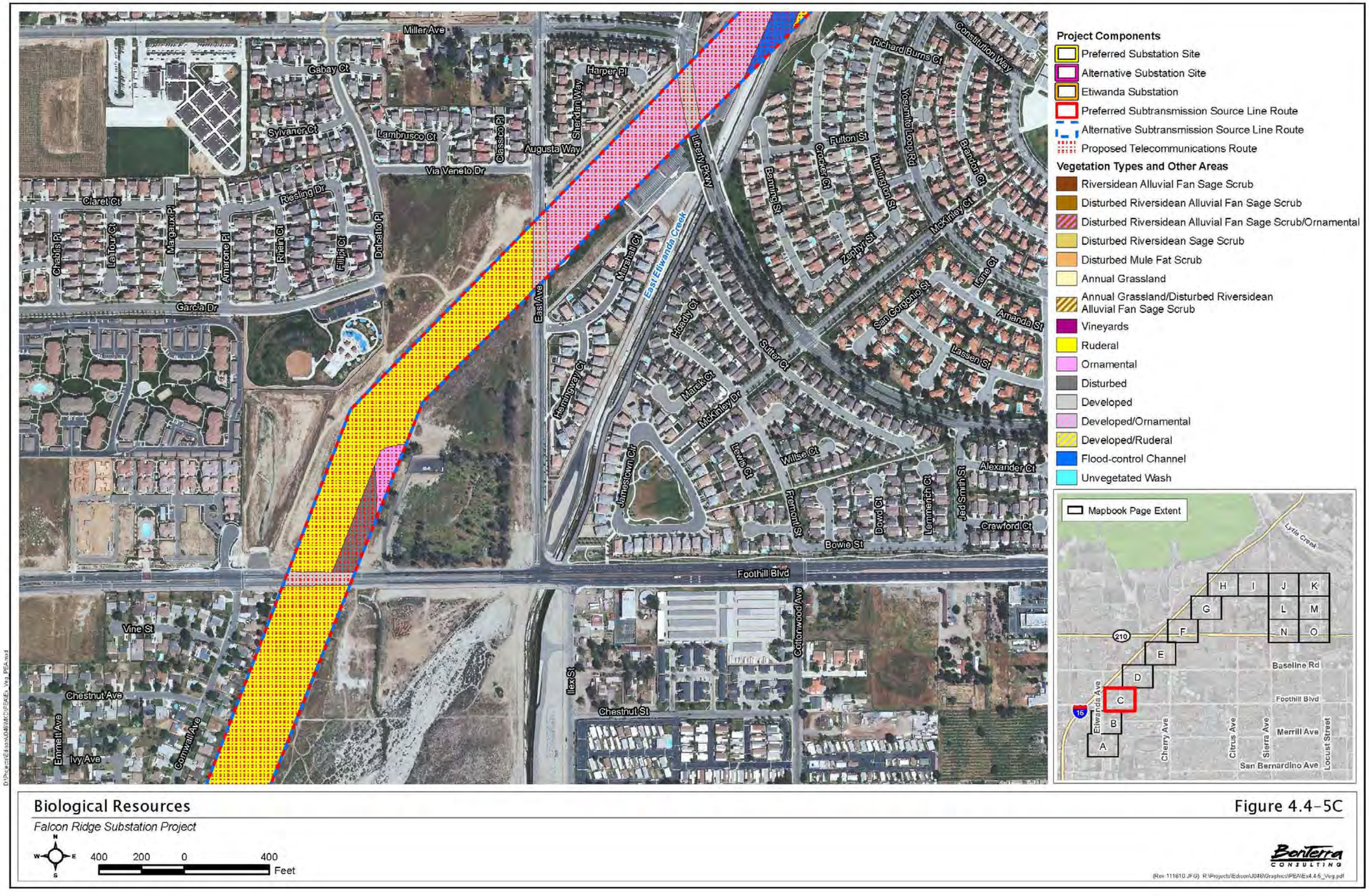
Falcon Ridge Substation Project



Biological Resources — **Figure 4.4-5B**

Falcon Ridge Substation Project

(Rev 111610 JFC) R:\Projects\Edison\U046\Graphics\PEA\Ex4 4-5_Veg.pdf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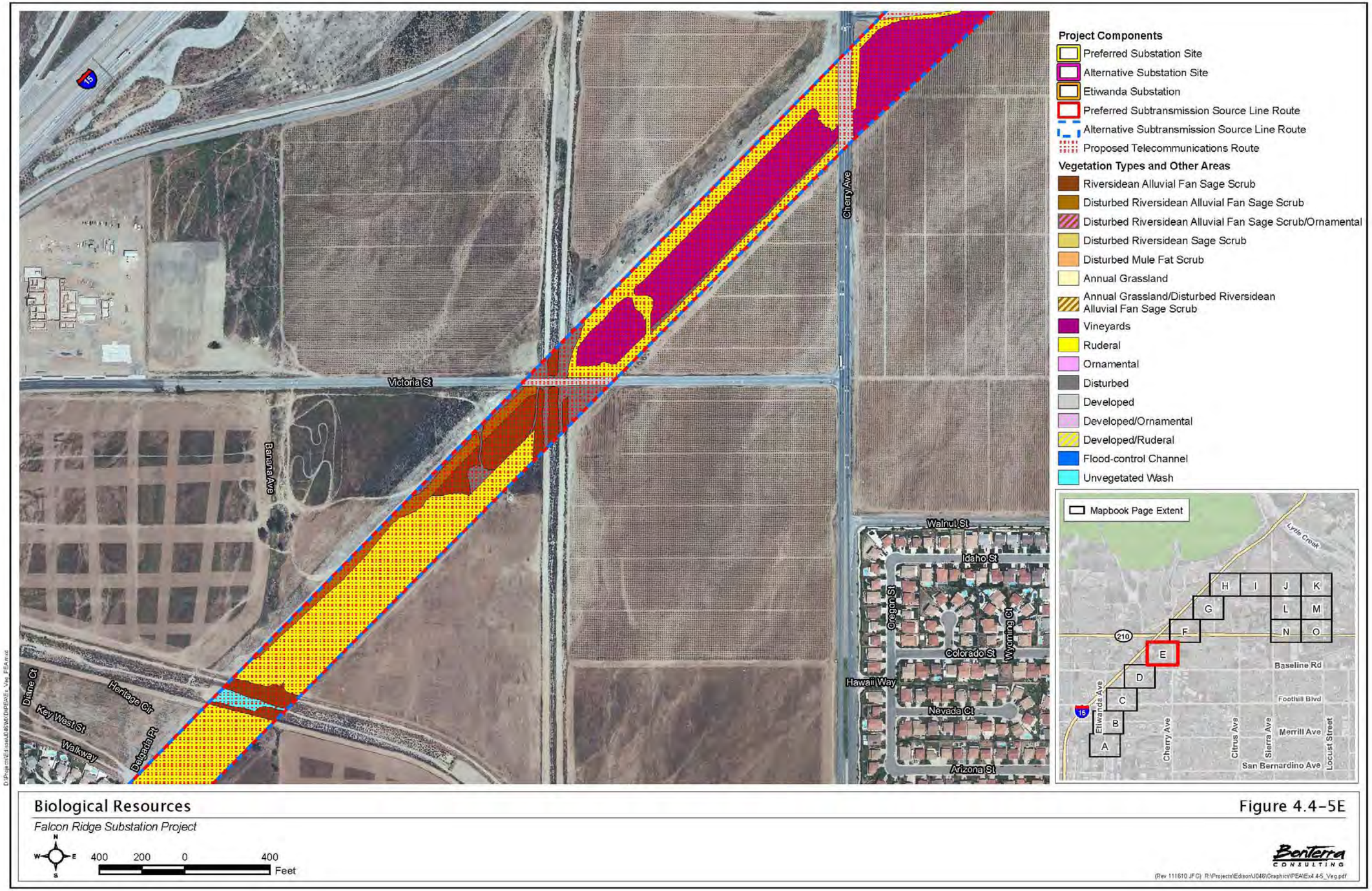
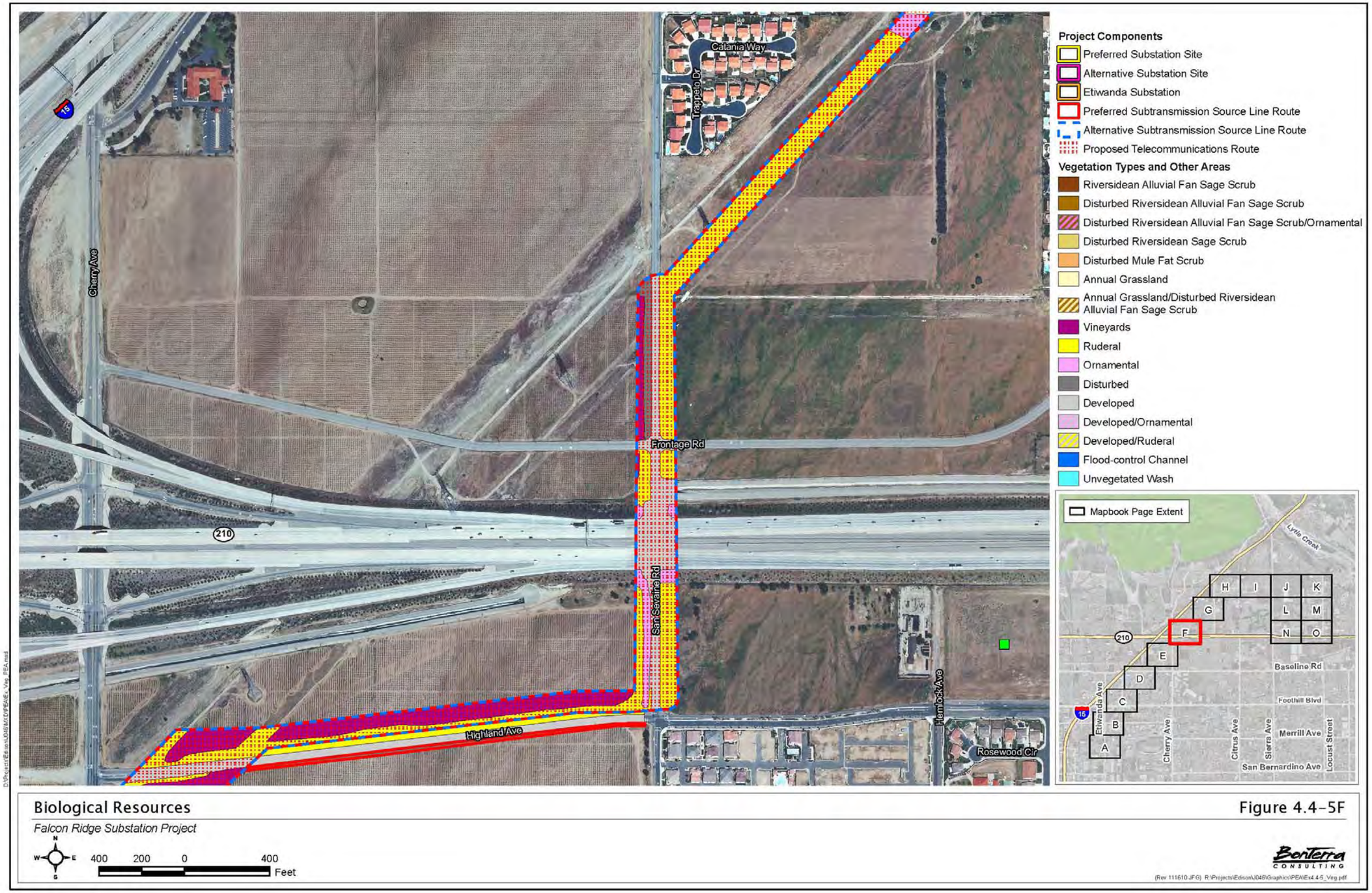
Gabay Ct
Sylvaner Ct
Lambrusco Ct
Classico Ct
Sheridan Way
Harper Pl
Augusta Way
Via Venelo Dr
Riesling Dr
Claret Ct
Chablis Pl
La Tour Ct
Margaux Pl
Amarone Pl
Rhein Ct
Filipi Ct
Dolcetto Pl
Garcia Dr
East Ave
Marshall Ct
East Etiwanda Creek
Hendry Ct
Hemingway Ct
Mareik Ct
McKinley Dr
Jamestown Ct
Lewis Ct
Wilse Ct
Fremont St
Dowd Ct
Lemmerich Ct
Jed Smith St
Alexander Ct
Crawford Ct
Bowie St
Foothill Blvd
Vine St
Chestnut Ave
Emmett Ave
Ivy Ave
Cornwall Ave
Ilex St
Chestnut St
Cottonwood Ave
Liberty Pkwy
Banning St
Crocker Ct
Fulton St
Huntington St
Yosemite Loop Rd
Richard Burns Ct
Constitution Way
Brandon Ct
McKinley Ct
Zephyr St
Lane Ct
San Gorgonio St
Amanda St
Lassen St
Stutler Ct
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Vegetation Types and Other Areas
Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub/Ornamental
Disturbed Riversidean Sage Scrub
Disturbed Mule Fat Scrub
Annual Grassland
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub
Vineyards
Ruderal
Ornamental
Disturbed
Developed
Developed/Ornamental
Developed/Ruderal
Flood-control Channel
Unvegetated Wash
Mapbook Page Extent
Lytle Creek
H
I
J
K
G
L
M
N
O
210
F
E
D
C
B
A
15
Etiwanda Ave
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
D:\Projects\Edison\J046\MXD\PEA\Ex_Veg_PEA.mxd
Biological Resources
Falcon Ridge Substation Project
N
W
E
S
400
200
0
400
Feet
Figure 4.4-5C
BonTerra CONSULTING
(Rev 111610 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-5_Veg.pdf

Biological Resources — Figure 4.4-5D

Falcon Ridge Substation Project

(Rev 111610 JFC) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-5_Veg.pdf


Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Vegetation Types and Other Areas
Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub/Ornamental
Disturbed Riversidean Sage Scrub
Disturbed Mule Fat Scrub
Annual Grassland
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub
Vineyards
Ruderal
Ornamental
Disturbed
Developed
Developed/Ornamental
Developed/Ruderal
Flood-control Channel
Unvegetated Wash
Mapbook Page Extent
Victoria St
Banana Ave
Cherry Ave
Walnut St
Idaho St
Oregon St
Wyoming St
Colorado St
Hawaii Way
Nevada Ct
Arizona St
Diane Ct
Heritage Cir
Key West St
Walkway
Dabarda Pl
Lytle Creek
Baseline Rd
Foothill Blvd
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
Locust Street
San Bernardino Ave
Biological Resources
Falcon Ridge Substation Project
Figure 4.4-5E
400 200 0 400
Feet
Benterra CONSULTING



Biological Resources — **Figure 4.4-5F**

Falcon Ridge Substation Project

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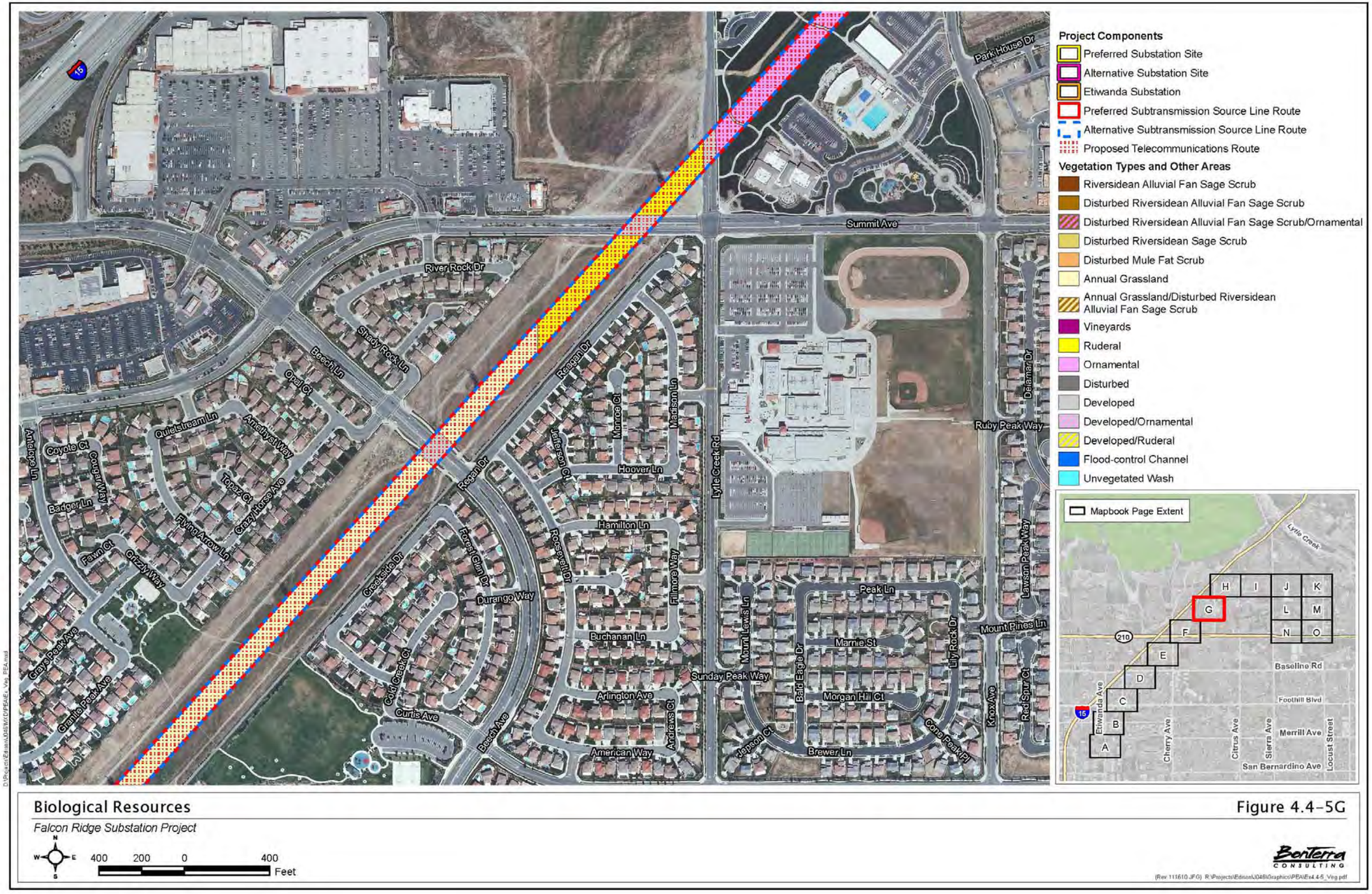
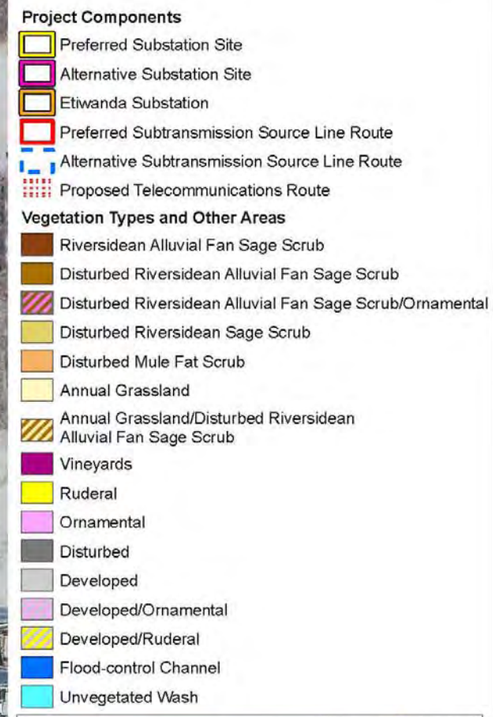

Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Vegetation Types and Other Areas
Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub/Ornamental
Disturbed Riversidean Sage Scrub
Disturbed Mule Fat Scrub
Annual Grassland
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub
Vineyards
Ruderal
Ornamental
Disturbed
Developed
Developed/Ornamental
Developed/Ruderal
Flood-control Channel
Unvegetated Wash
Mapbook Page Extent
Summit Ave
River Rock Dr
Park House Dr
Ruby Peak Way
Lytle Creek Rd
Hoover Ln
Hamilton Ln
Buchanan Ln
Arlington Ave
American Way
Sunday Peak Way
Peak Ln
Marnie St
Morgan Hill Ct
Brewer Ln
Mount Pines Ln
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
Lytle Creek
Biological Resources
Figure 4.4-5G
Falcon Ridge Substation Project
400 200 0 400
Feet



Biological Resources — **Figure 4.4-5H**

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

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(Rev 111610 JFG) R:\Projects\Edison\J048\Graphics\PEA\Ex4.4-5_Veg.pdf

Biological Resources

Falcon Ridge Substation Project

Figure 4.4-5l

Biological Resources

Falcon Ridge Substation Project

Figure 4.4-5J

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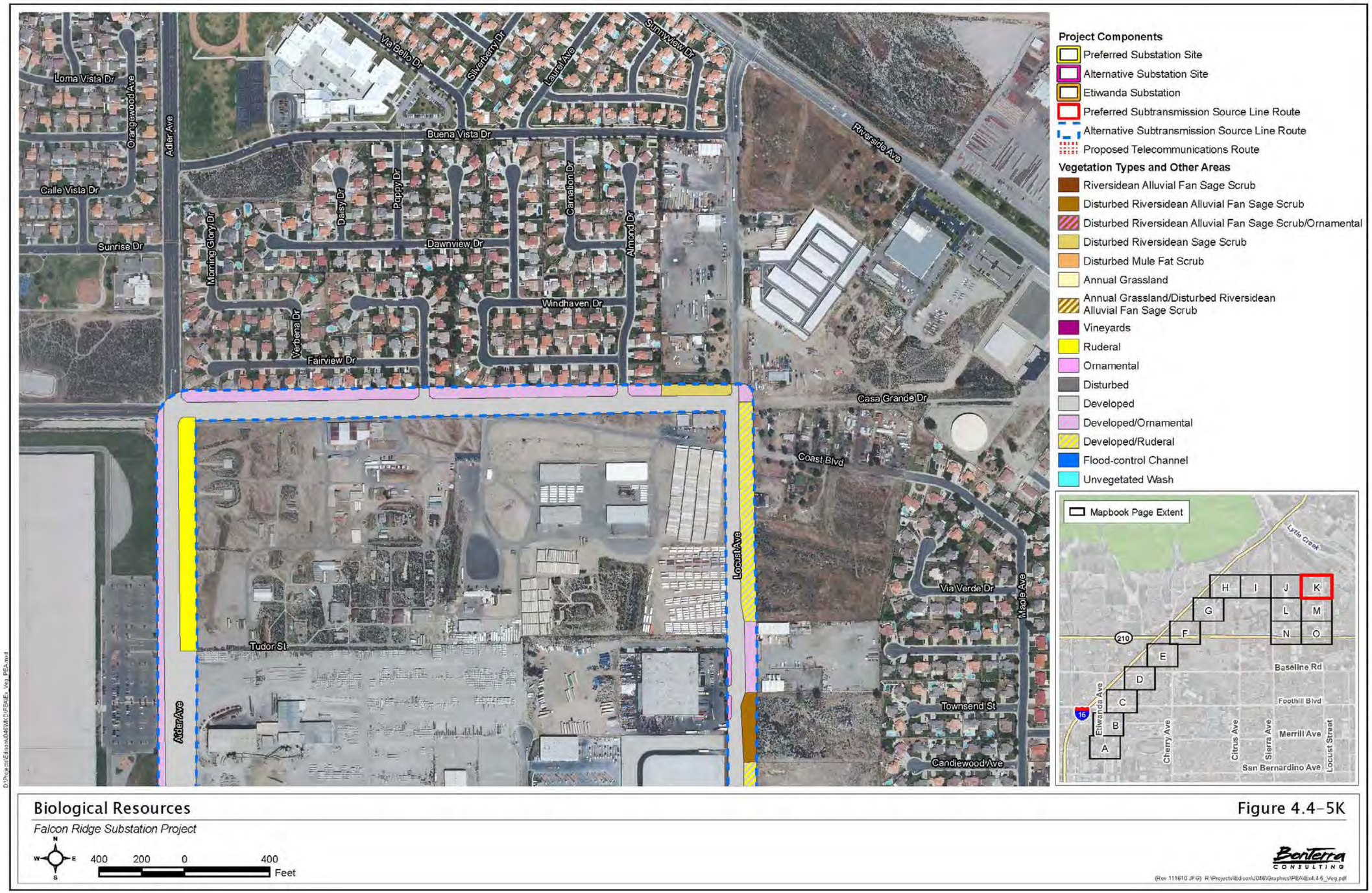
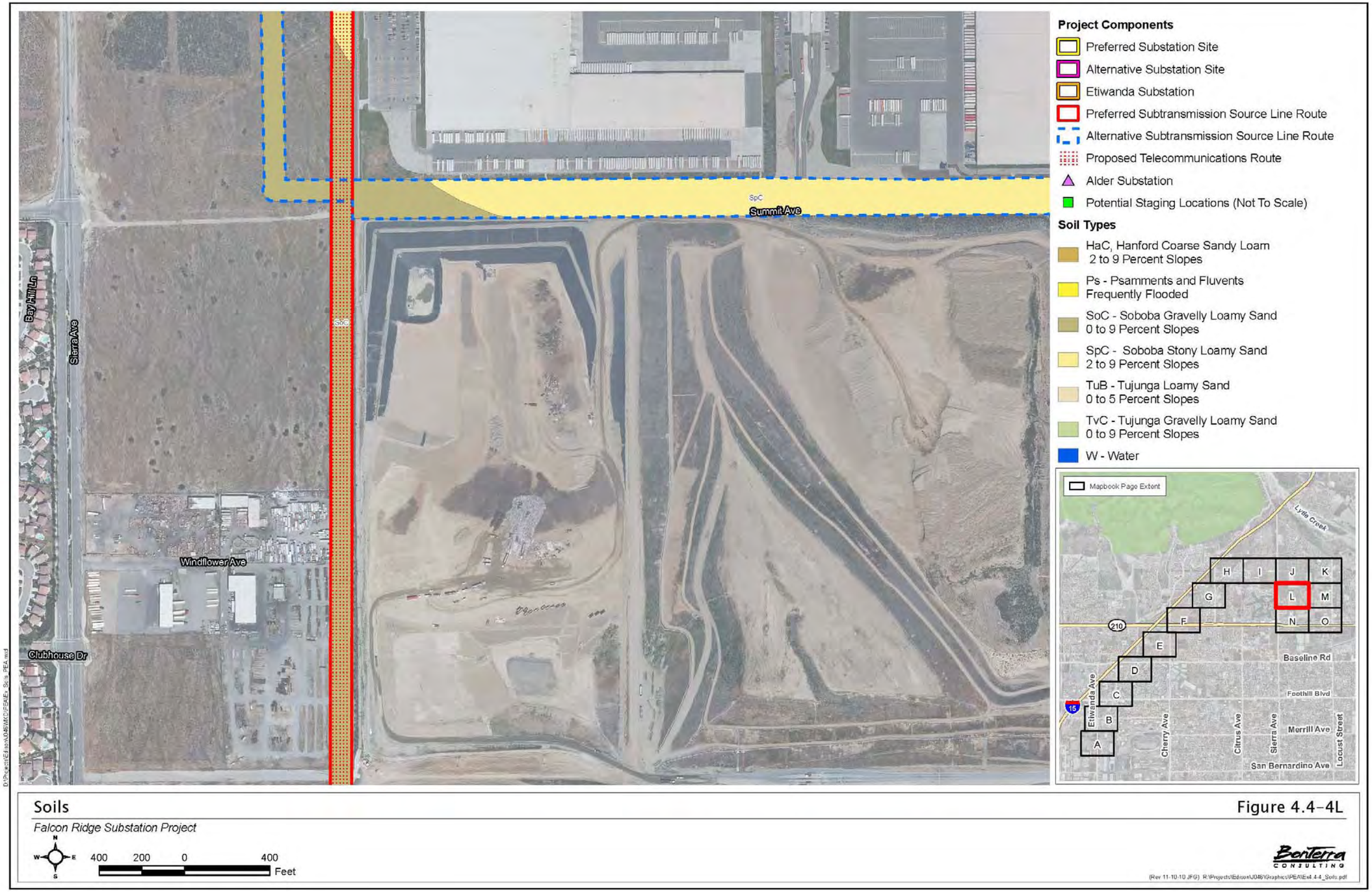
(Rev 111610 JFC) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-5_Veg.pdf



Biological Resources **Figure 4.4-5K**

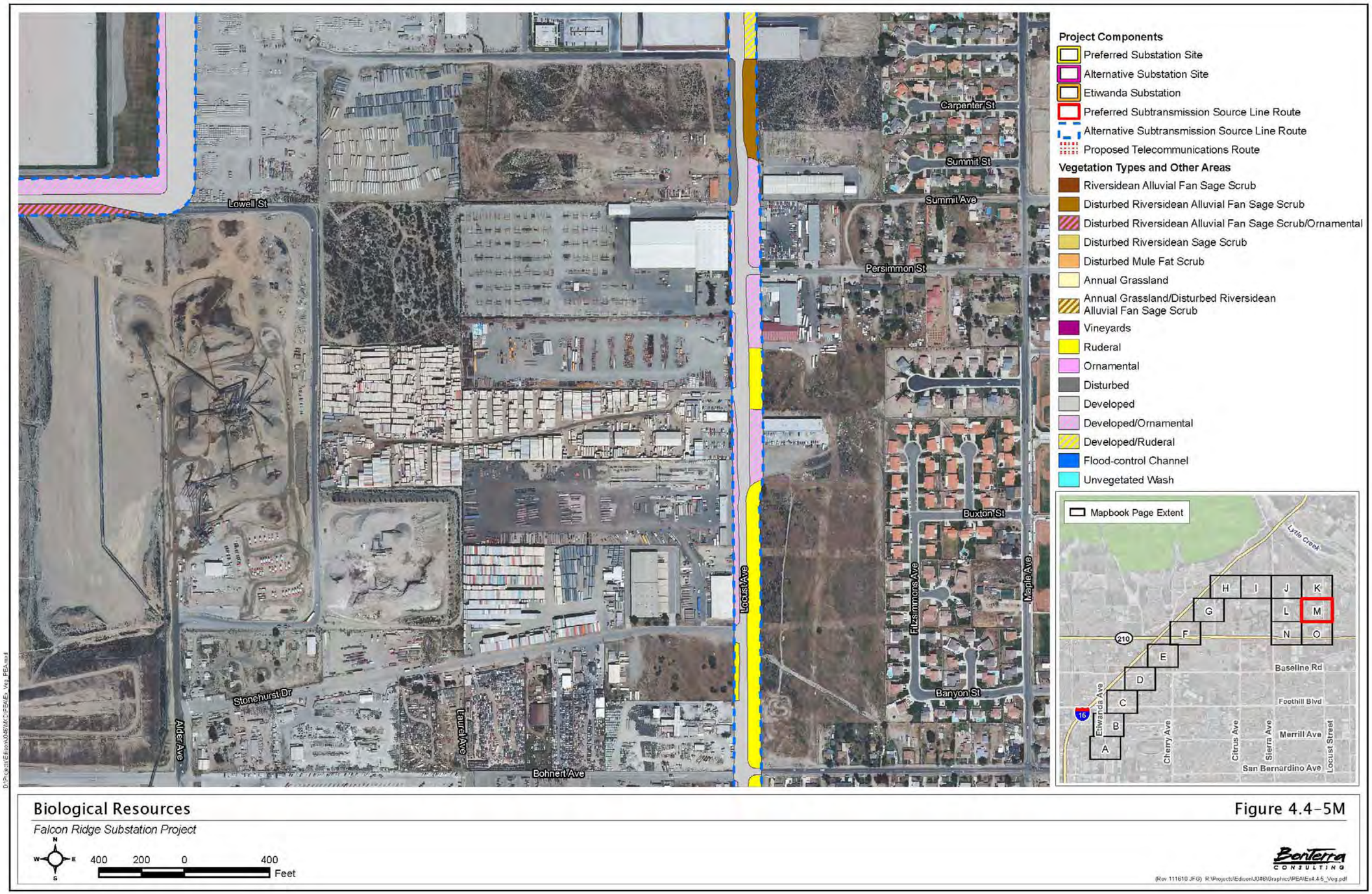
Falcon Ridge Substation Project



Soils

Figure 4.4-4L

Falcon Ridge Substation Project



Biological Resources — **Figure 4.4-5M**

Falcon Ridge Substation Project

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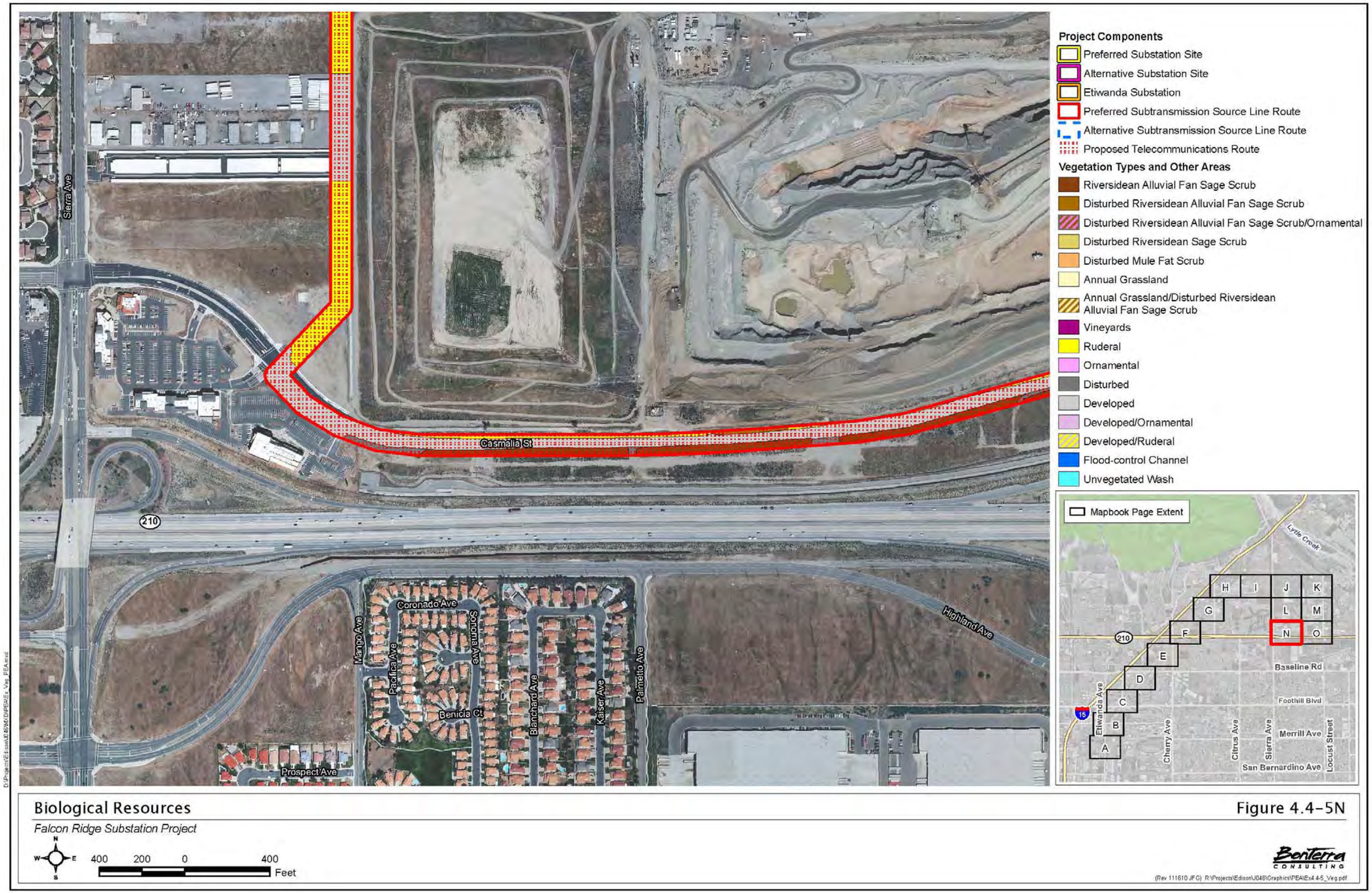
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Vegetation Types and Other Areas
Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub/Ornamental
Disturbed Riversidean Sage Scrub
Disturbed Mule Fat Scrub
Annual Grassland
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub
Vineyards
Ruderal
Ornamental
Disturbed
Developed
Developed/Ornamental
Developed/Ruderal
Flood-control Channel
Unvegetated Wash
Mapbook Page Extent
Sierra Ave
Casmalia St
210
Coronado Ave
Sonoma Ave
Mango Ave
Pacifica Ave
Benicia Ct
Blanchard Ave
Kaiser Ave
Palmetto Ave
Highland Ave
Prospect Ave
Lytle Creek
Baseline Rd
Foothill Blvd
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
San Bernardino Ave
Locust Street
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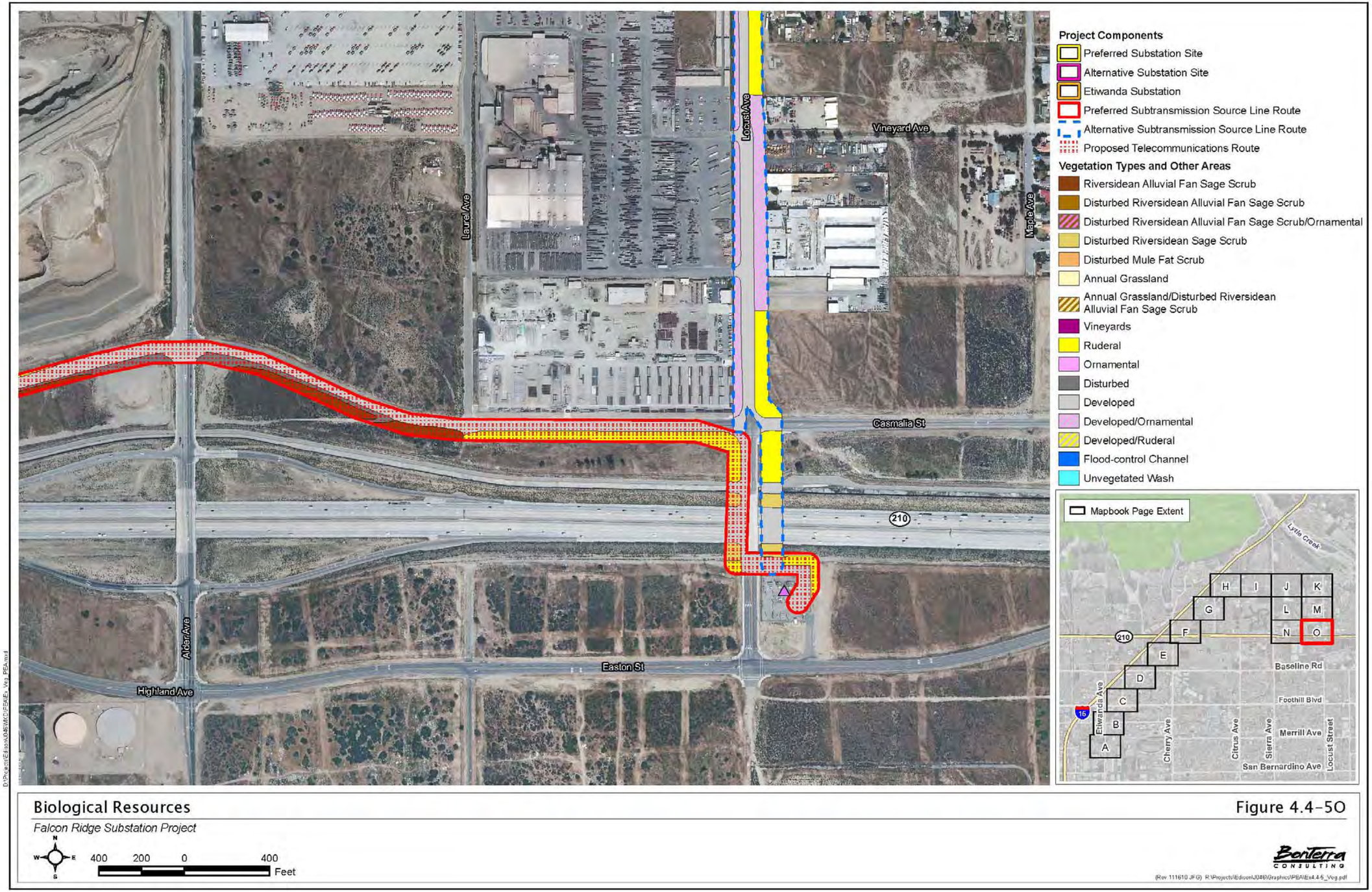
Biological Resources
Falcon Ridge Substation Project
Figure 4.4-5N
400 200 0 400
Feet
Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-5_Veg.pdf



Biological Resources — **Figure 4.4-5O**

Falcon Ridge Substation Project

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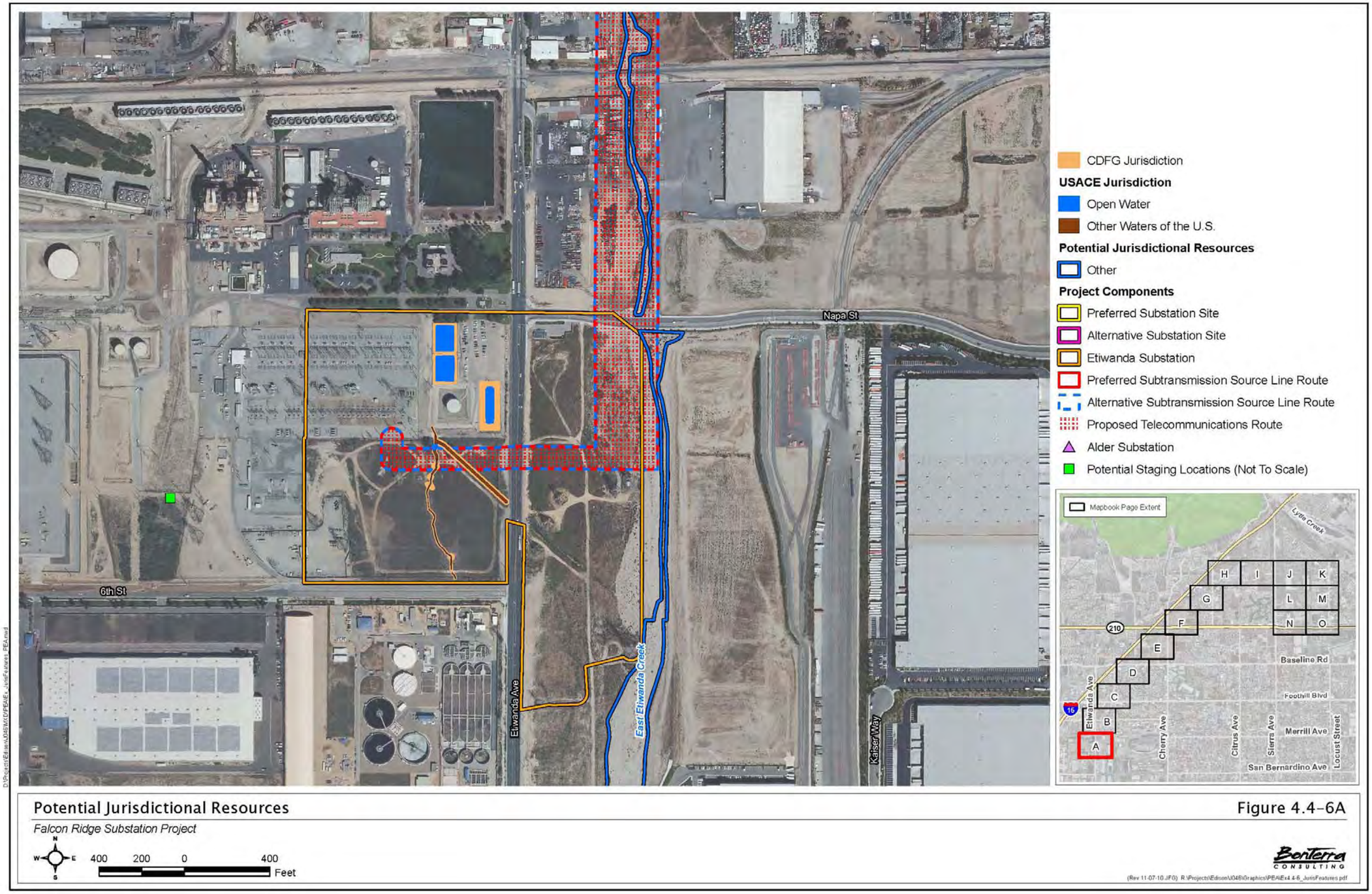
CDFG Jurisdiction
USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Mapbook Page Extent
Napa St
6th St
Etiwanda Ave
East Etiwanda Creek
Kaiser Way
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
210
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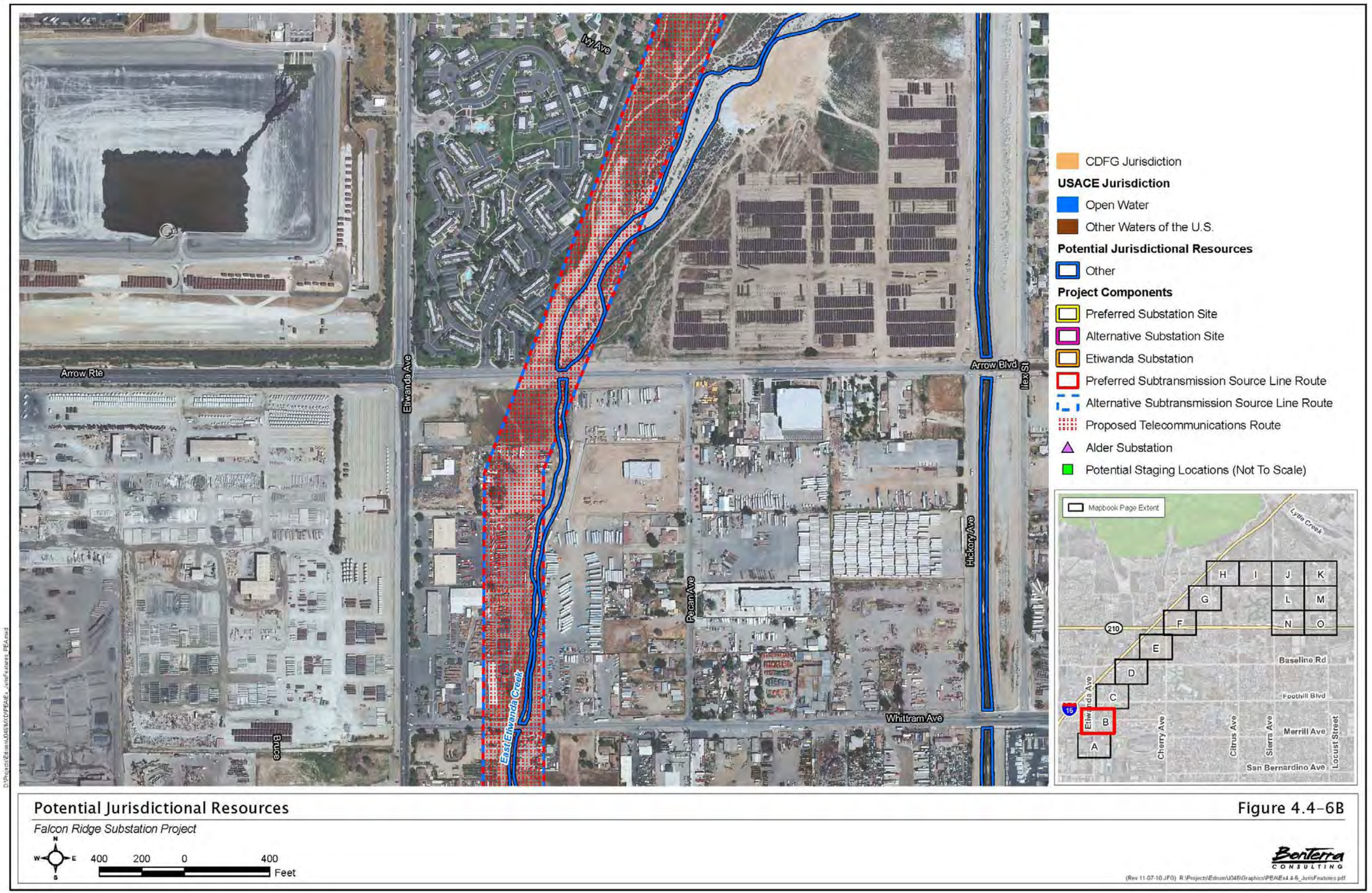
D:\Projects\Edison\U046\MXD\PEA\Ex_JurisFeatures_PEA.mxd
Potential Jurisdictional Resources
Falcon Ridge Substation Project
400 200 0 400
Feet
Figure 4.4-6A
(Rev 11-07-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-6_JurisFeatures.pdf



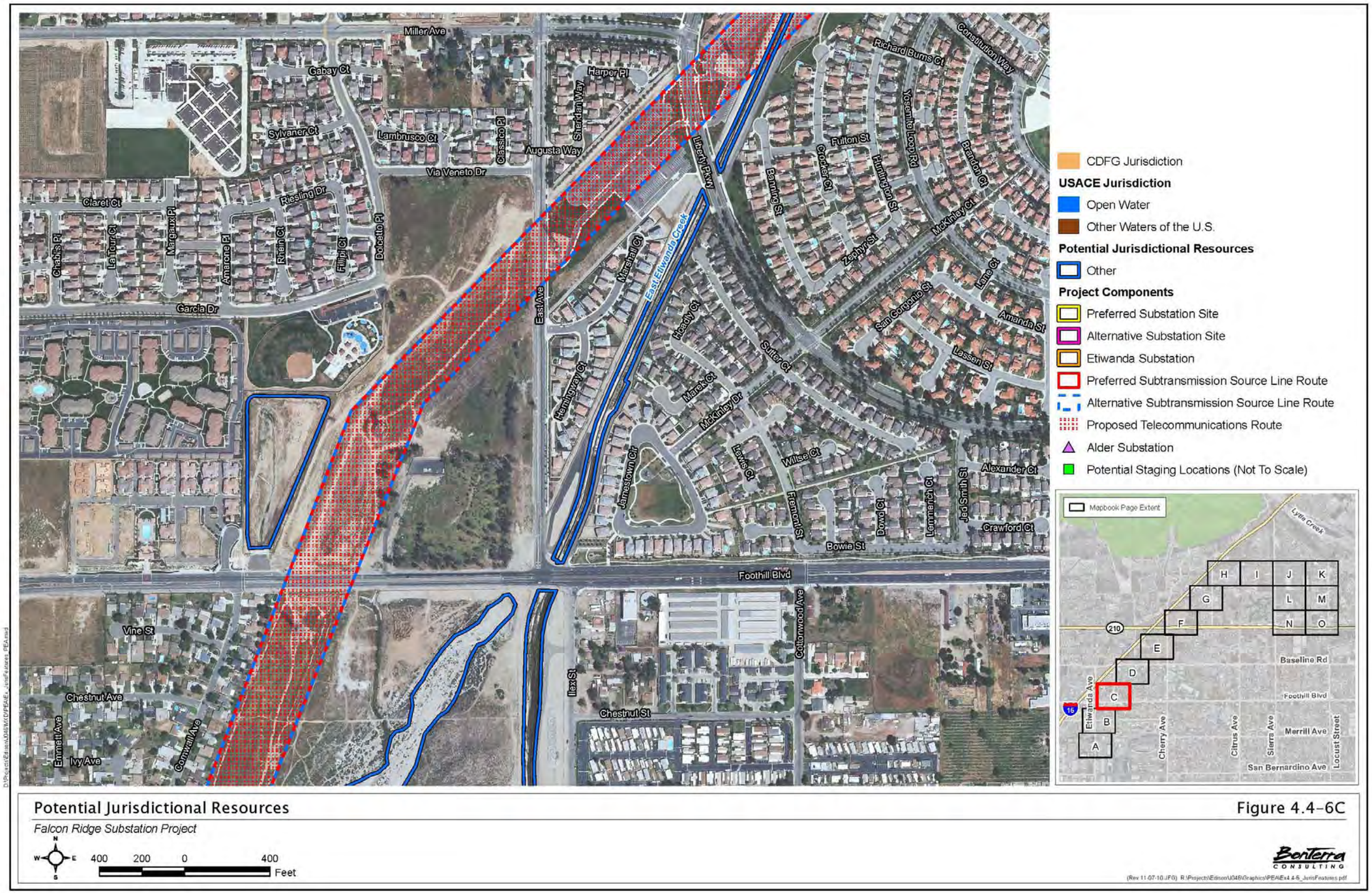
Potential Jurisdictional Resources — **Figure 4.4-6B**

Falcon Ridge Substation Project

400 200 0 400 Feet

BonTerra CONSULTING

(Rev 11-07-10.JPG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-6_JurisFeatures.pdf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Gabay Ct
Sylvaner Ct
Lambrusco Ct
Classico Pl
Augusta Way
Via Veneto Dr
Harper Pl
Sheridan Way
Riesling Dr
Claret Ct
Chablis Pl
La Tour Ct
Margaux Pl
Amarone Pl
Rhein Ct
Filipi Ct
Dolcetto Pl
Garcia Dr
East Ave
Etiwanda Pkwy
East Etiwanda Creek
Marshall Ct
Richard Burns Ct
Constitution Way
Yosemite Loop Rd
Fulton St
Crocker Ct
Banning St
Harrington St
Brandon Ct
McKinley Ct
Zephyr St
Lane Ct
San Gorgonio St
Amanda St
Lassen St
Hoadly Ct
Sutter Ct
Merak Ct
McKinley Dr
Hemingway Ct
Jamestown Ct
Lewis Ct
Wilse Ct
Alexander Ct
Fremont St
Dowd Ct
Lemmench Ct
Jed Smith Ct
Crawford Ct
Bowie St
Foothill Blvd
Vine St
Chestnut Ave
Emmett Ave
Ivy Ave
Central Ave
Ilex St
Chestnut St
Cottonwood Ave
CDFG Jurisdiction
USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Mapbook Page Extent
Lytle Creek
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Baseline Rd
D
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Etiwanda Ave
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Foothill Blvd
A
Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
Locust Street
San Bernardino Ave
D:\Projects\Etiwanda\MXD\PEA\Ex_JurisFeatures_PEA.mxd
Potential Jurisdictional Resources
Falcon Ridge Substation Project
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Figure 4.4-6C
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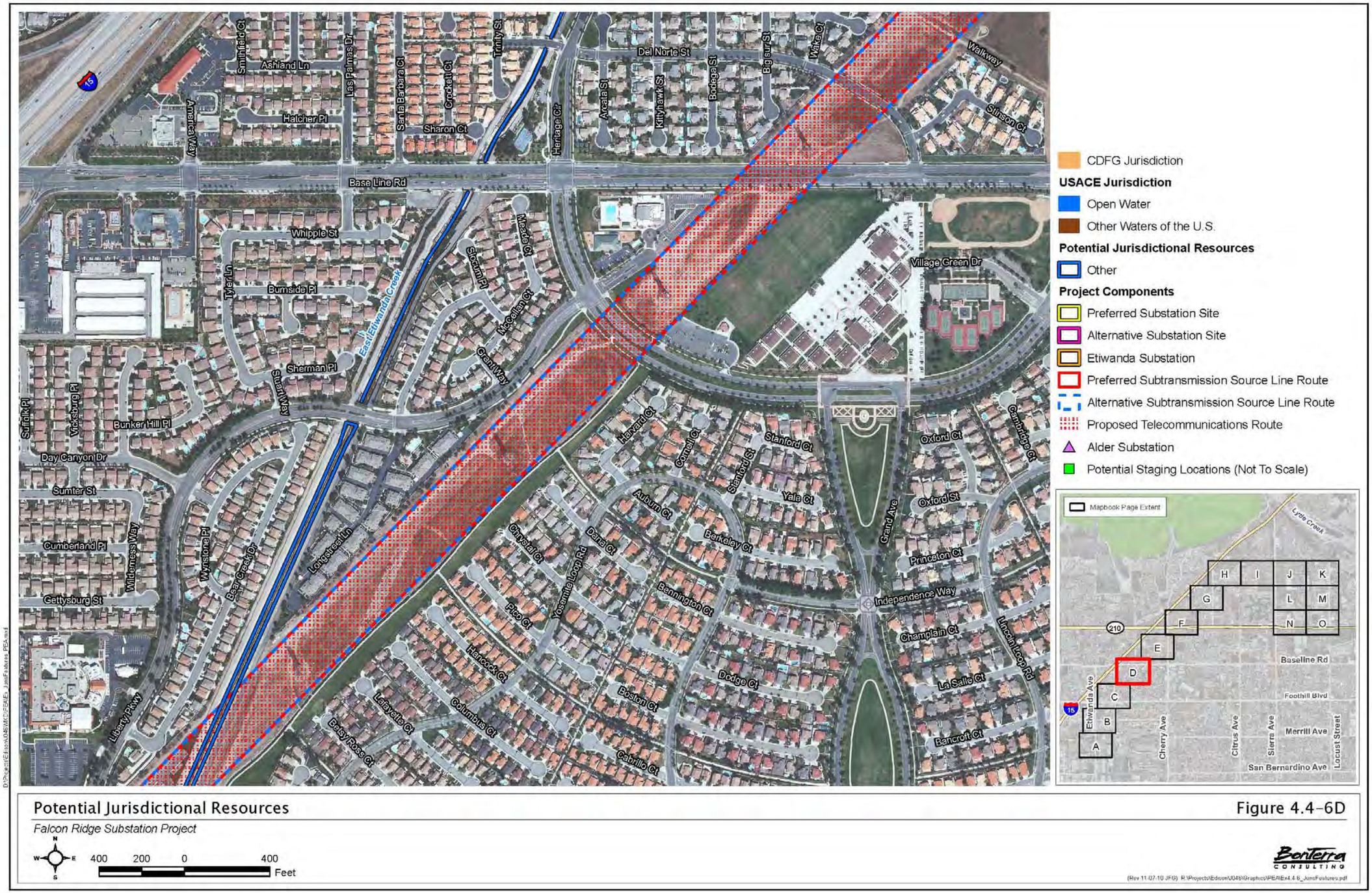
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USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Mapbook Page Extent
Base Line Rd
Foothill Blvd
Baseline Rd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
Lytle Creek
Whipple St
Village Green Dr
Sherman Pl
Day Canyon Dr
Sumter St
Cumberland Pl
Gettysburg St
Liberty Pkwy
Independence Way
Princeton Ct
Oxford St
Yale Ct
Stanford Ct
Berkeley Ct
Dodge Ct
Boston Ct
Bancroft Ct
La Salle Ct
Champlain Ct
Lincoln Loop Rd
Bennington Ct
Yosemite Loop Rd
Longstreet Ln
Bear Creek Dr
Wyoming Pl
Wilderness Way
Lafayette Ct
Columbus Ct
Cabrillo Ct
Betsy Ross Ct
Hancock Ct
Pico Ct
Chrysler Ct
Dana Ct
Auburn Ct
Harvard Ct
Cornell Ct
Grand Ave
Cambridge Ct
Suffolk Pl
Vicksburg Pl
Bunker Hill Pl
Stuart Way
Grant Way
McClellan Ct
Sherman Pl
Stockton Pl
Meade Ct
Burnside Pl
Tyler Ln
East Etiwanda Creek
America Way
Ashland Ln
Smithfield Ct
Las Palmas Dr
Santa Barbara Ct
Cricket Ct
Trinity St
Heritage Cir
Hatcher Pl
Sharon Ct
Arcata St
Del Norte St
Kittyhawk St
Bodega St
Big Sur St
Wake Ct
Walkway
Stinson Ct
Potential Jurisdictional Resources
Falcon Ridge Substation Project
Figure 4.4-6D
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(Rev 11-07-10 JFG) R:\Projects\Edison\U048\Graphics\PEA\Ex4.4-6_JurisFeatures.pdf
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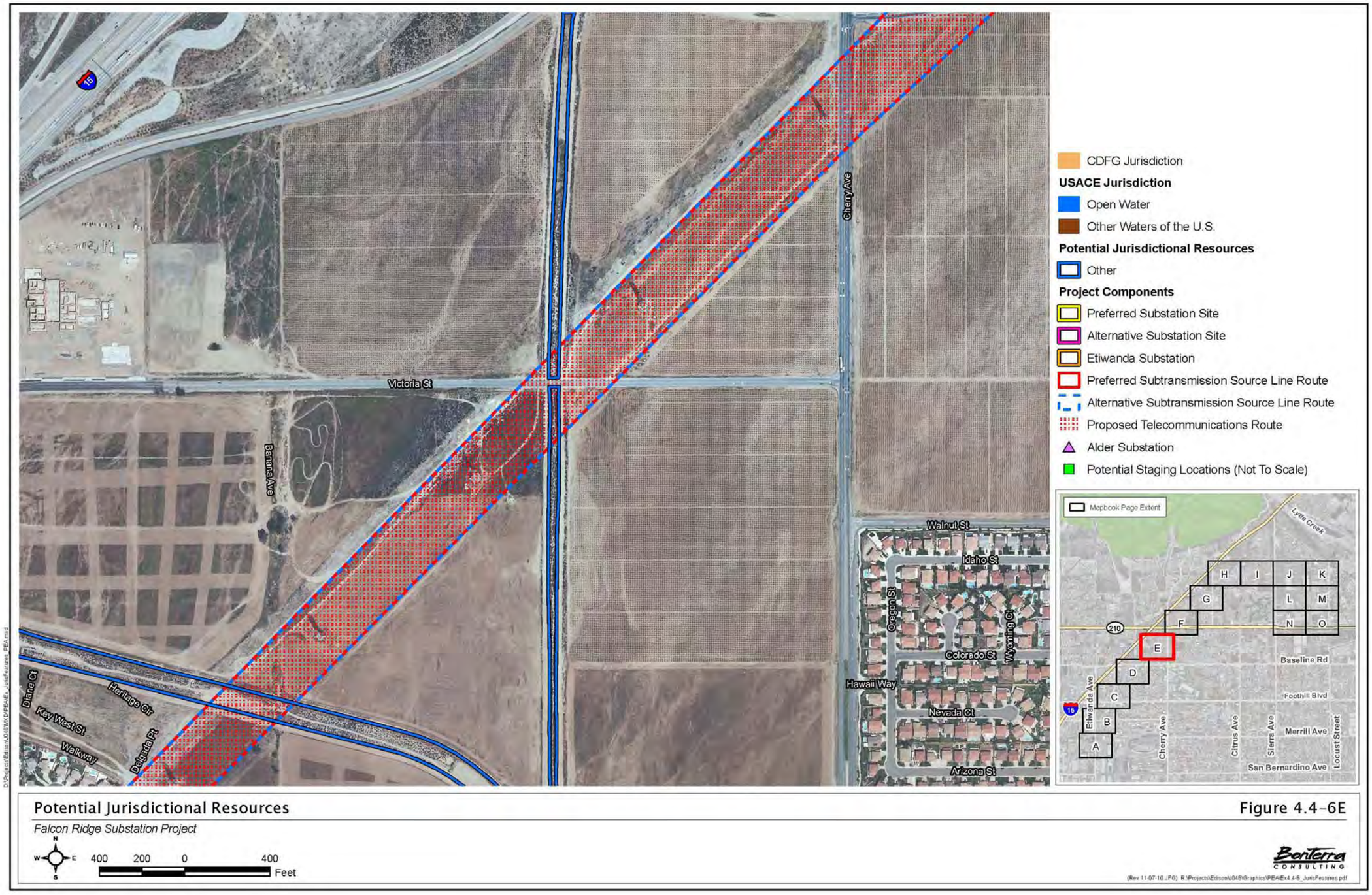

Potential Jurisdictional Resources

Falcon Ridge Substation Project

Figure 4.4-6E

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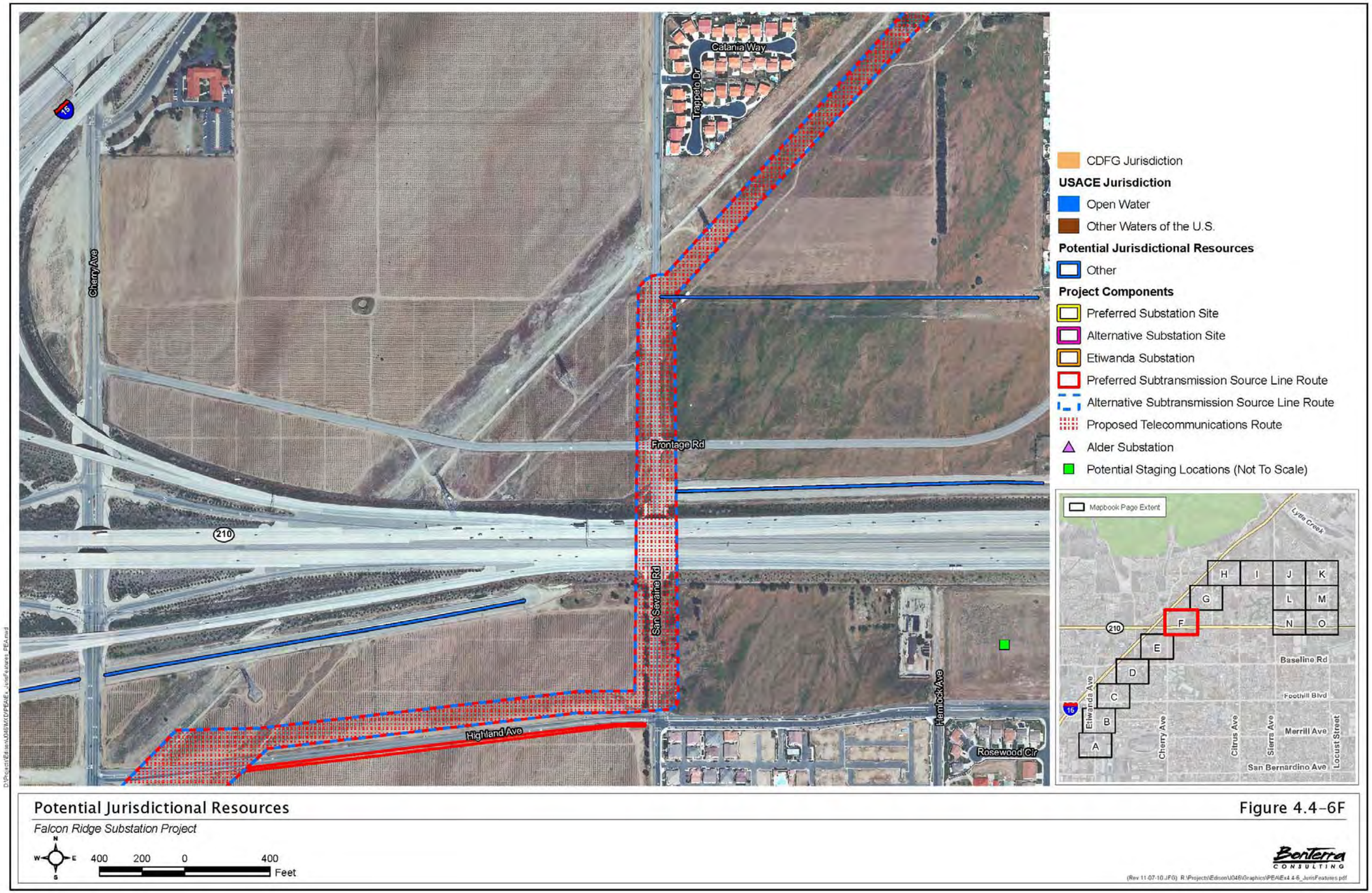

Potential Jurisdictional Resources **Figure 4.4-6F**

Falcon Ridge Substation Project

Potential Jurisdictional Resources

Falcon Ridge Substation Project

Figure 4.4-6G

N W E S 400 200 0 400 Feet

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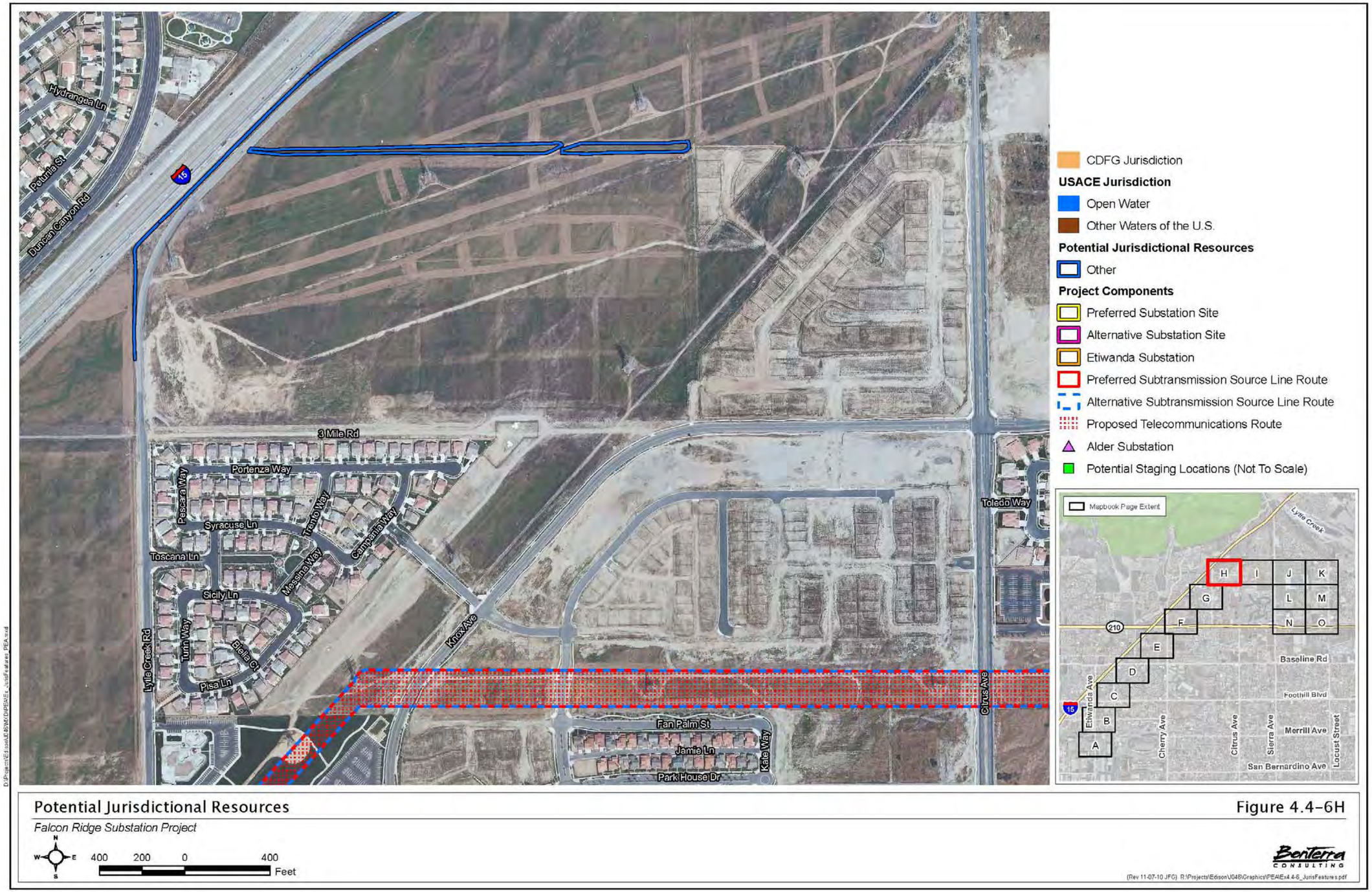

Potential Jurisdictional Resources

Falcon Ridge Substation Project

Figure 4.4-6H

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Potential Jurisdictional Resources — **Figure 4.4-6l**

Falcon Ridge Substation Project


Loma Vista Dr
Woodruff Ct
Buena Vista Dr
Flame Tree Ave
Calle Vista Dr
Plum Tree Ave
Sunrise Dr
Ponderosa Ave
Palmetto Ave
Dawnview Dr
Live Oak Ave
Goldenrod Ave
Amberwood Ave
Windhaven Dr
Tamarind Ave
Fairview Dr
Casa Grande Dr
Sierra Ave
CDFG Jurisdiction
USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
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Citrus Ave
Sierra Ave
Merrill Ave
Locust Street
San Bernardino Ave
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Potential Jurisdictional Resources
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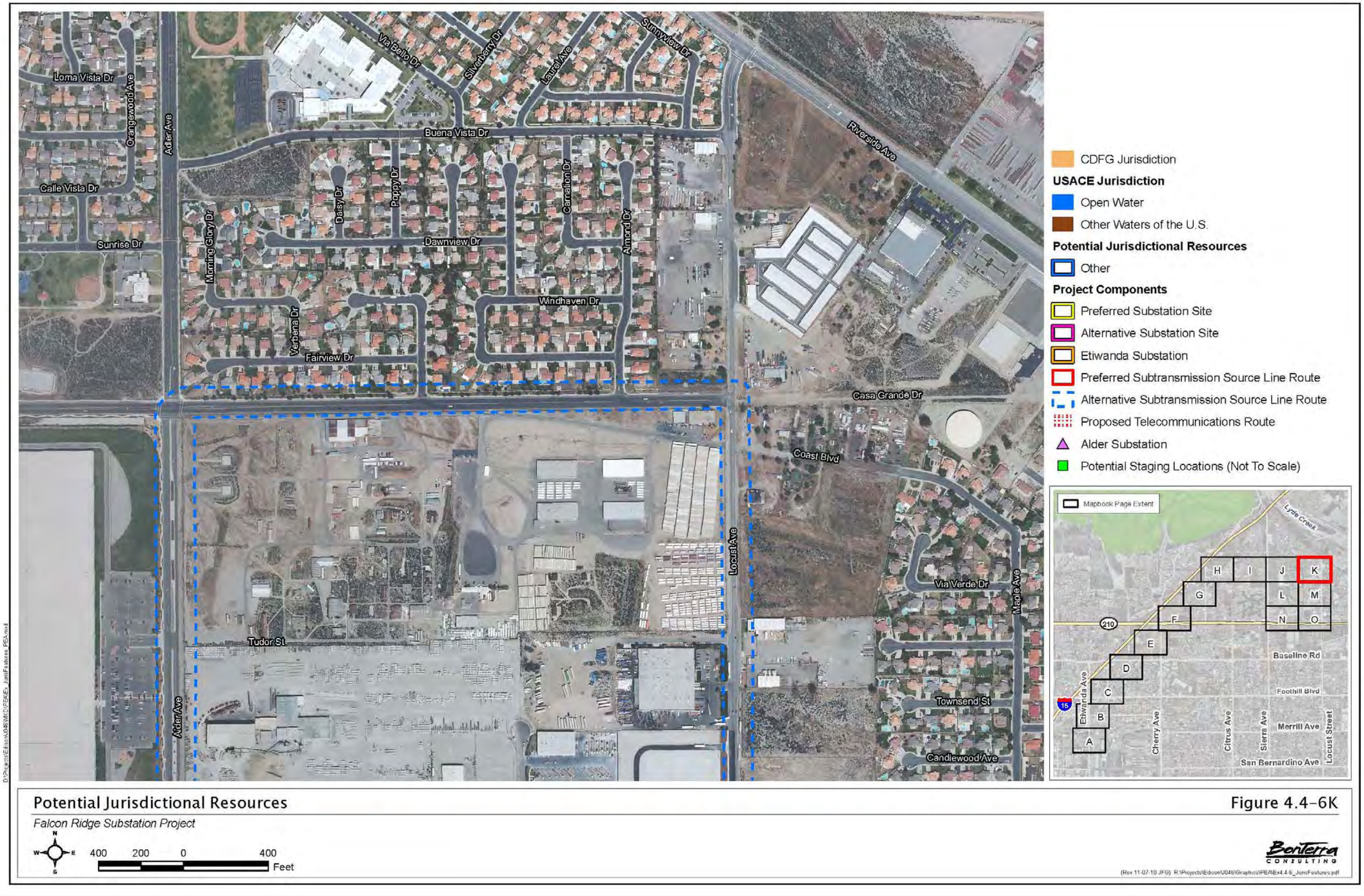
Loma Vista Dr
Orangewood Ave
Adler Ave
Via Bello Dr
Silverberry Dr
Laurel Ave
Sunnyview Dr
Buena Vista Dr
Riverside Ave
Calle Vista Dr
Sunrise Dr
Morning Glory Dr
Daisy Dr
Poppy Dr
Carnelion Dr
Almond Dr
Dawnview Dr
Windhaven Dr
Verbena Dr
Fairview Dr
Casa Grande Dr
Coast Blvd
Locust Ave
Via Verde Dr
Maple Ave
Tudor St
Alder Ave
Townsend St
Candlewood Ave
CDFG Jurisdiction
USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
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Etiwanda Ave
Cherry Ave
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Sierra Ave
Locust Street
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
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Potential Jurisdictional Resources
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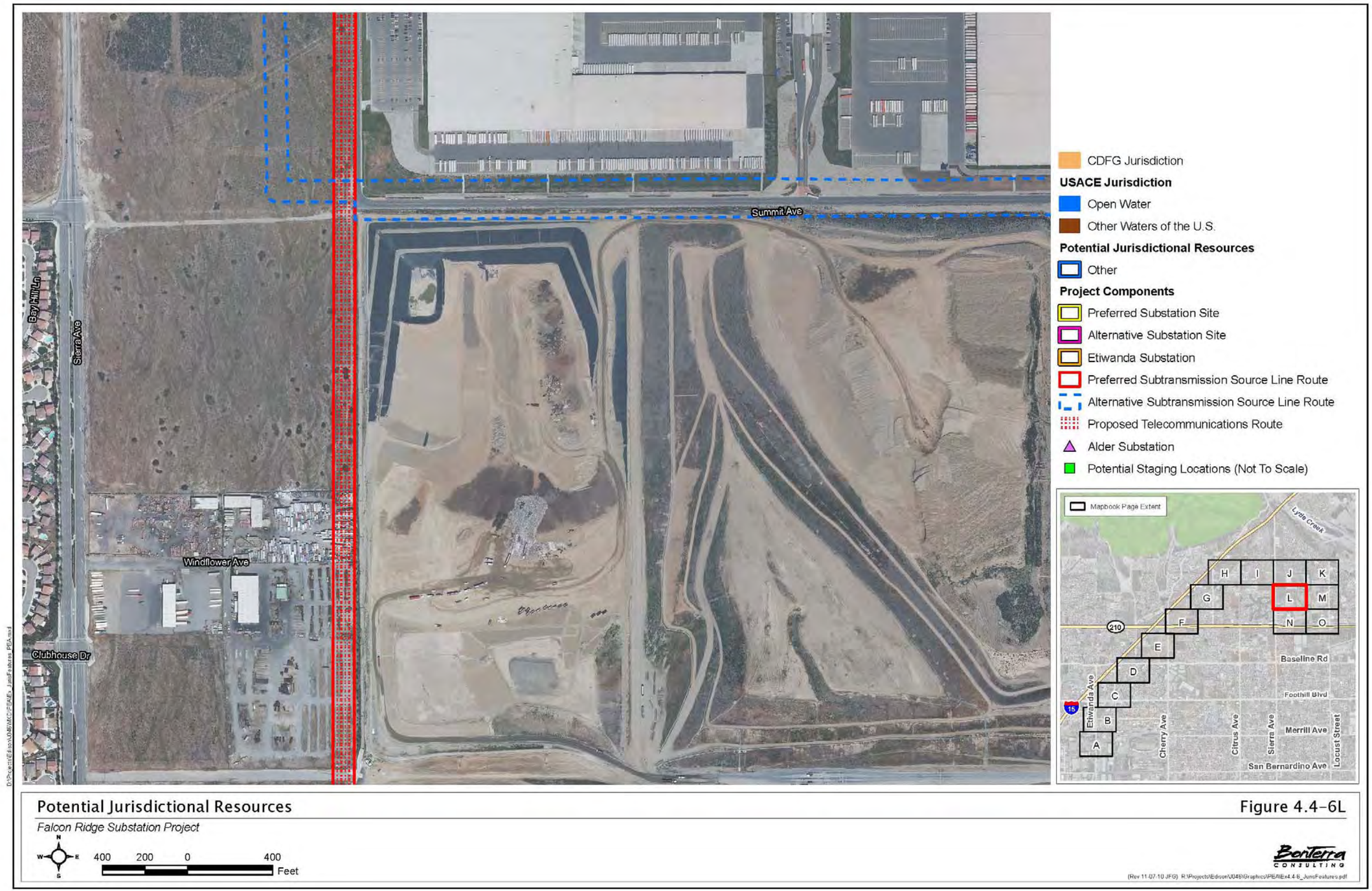
Figure 4.4-6K
BonTerra CONSULTING
(Rev 11-07-10 JFG) R:\Projects\Edison\048\Graphics\PEA\Ex4.4-6_JurisFeatures.pdf


Summit Ave
Bay Hill Ln
Sierra Ave
Windflower Ave
Clubhouse Dr
CDFG Jurisdiction
USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
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Potential Staging Locations (Not To Scale)
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Foothill Blvd
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Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
San Bernardino Ave
Locust Street
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Potential Jurisdictional Resources
Figure 4.4-6L
Falcon Ridge Substation Project
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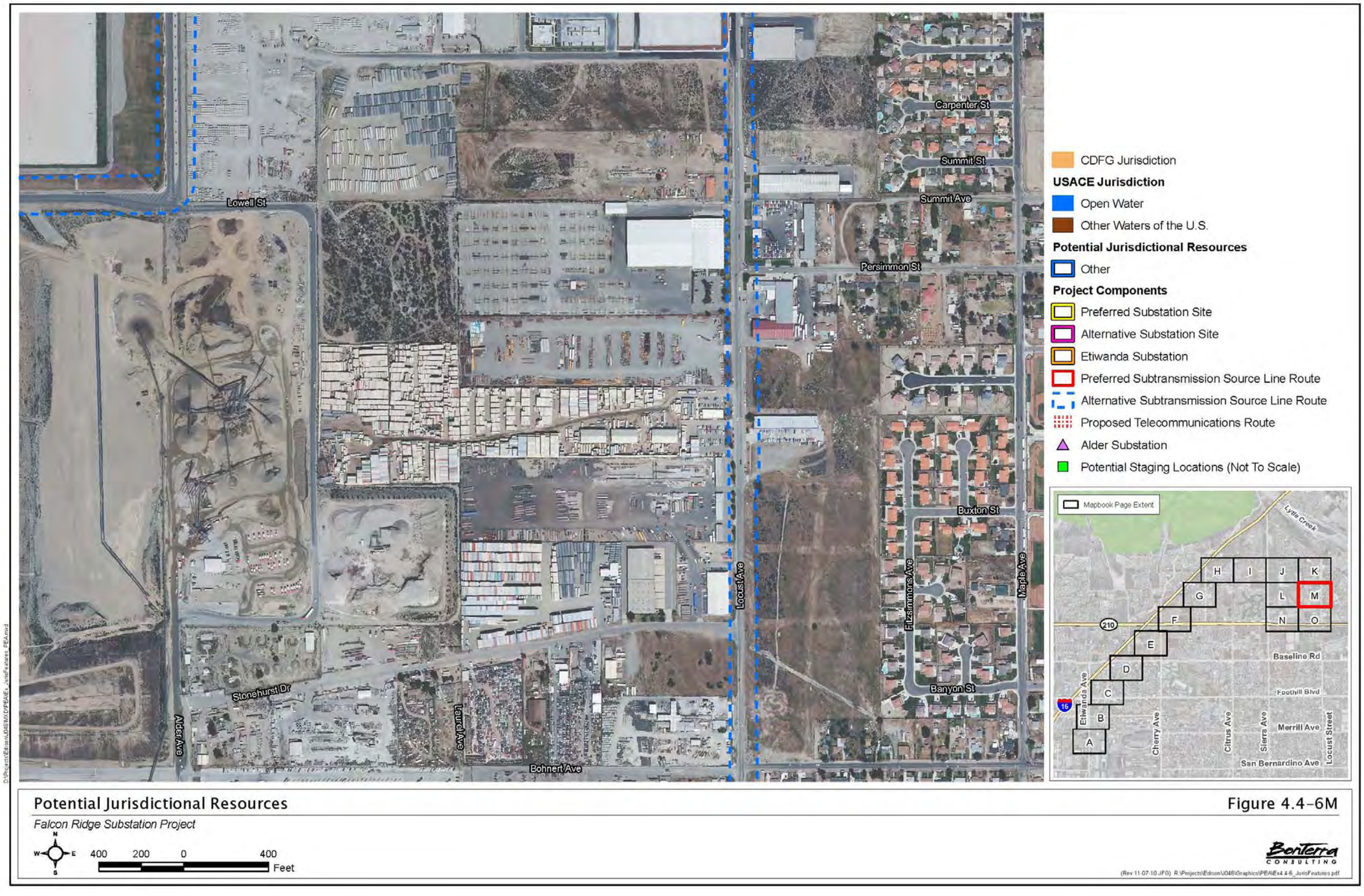
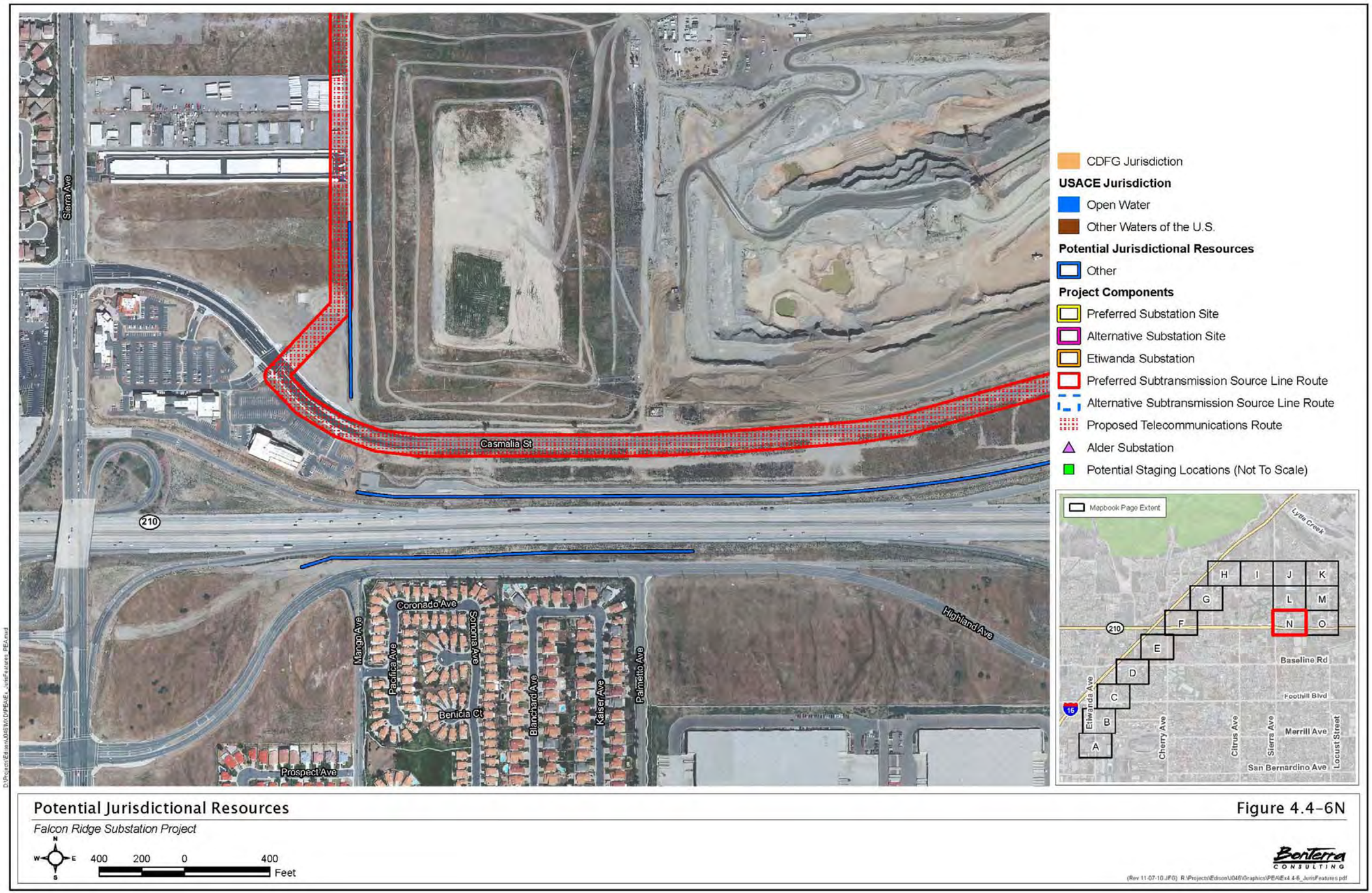
(Rev 11-07-10 JFG) R:\Projects\Edison\0486\Graphics\PEA\Ex4.4-6_JurisFeatures.pdf



Potential Jurisdictional Resources **Figure 4.4-6M**

Falcon Ridge Substation Project



Potential Jurisdictional Resources

Figure 4.4-6N

Falcon Ridge Substation Project

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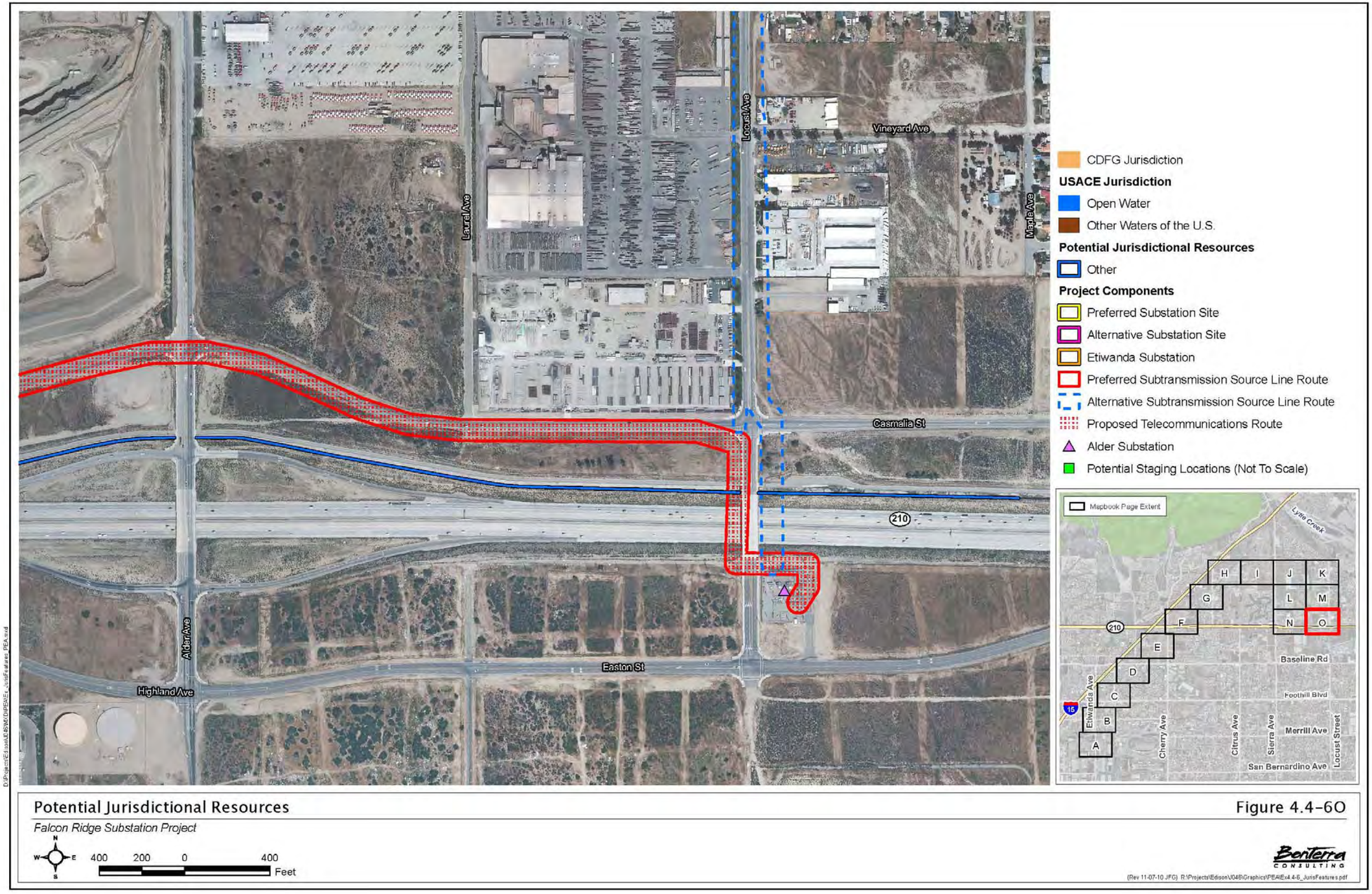
Laurel Ave
Locust Ave
Vineyard Ave
Maple Ave
Casmalia St
210
Alder Ave
Highland Ave
Easton St
CDFG Jurisdiction
USACE Jurisdiction
Open Water
Other Waters of the U.S.
Potential Jurisdictional Resources
Other
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Mapbook Page Extent
Lytle Creek
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Etiwanda Ave
Baseline Rd
Foothill Blvd
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Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
Locust Street
San Bernardino Ave
Potential Jurisdictional Resources
Falcon Ridge Substation Project
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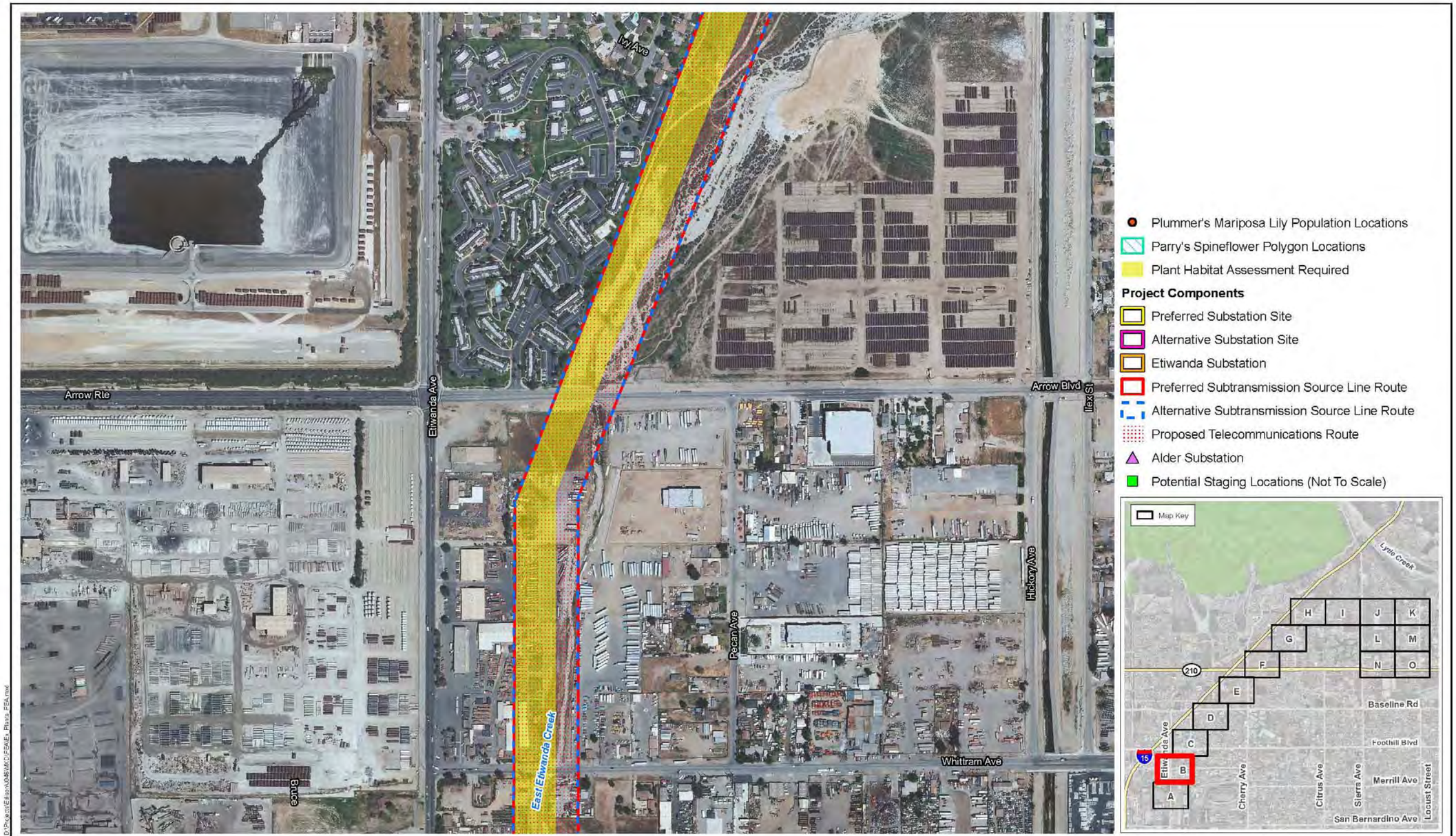
Feet
Figure 4.4-60
Beriterra CONSULTING
(Rev 11-07-10 JFG) R:\Projects\Edison\U048\Graphics\PEA\Ex4.4-6_JurisFeatures.pdf

Special Status Plant Locations

Figure 4.4-7A

Falcon Ridge Substation Project



Special Status Plant Locations

Figure 4.4-7B

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

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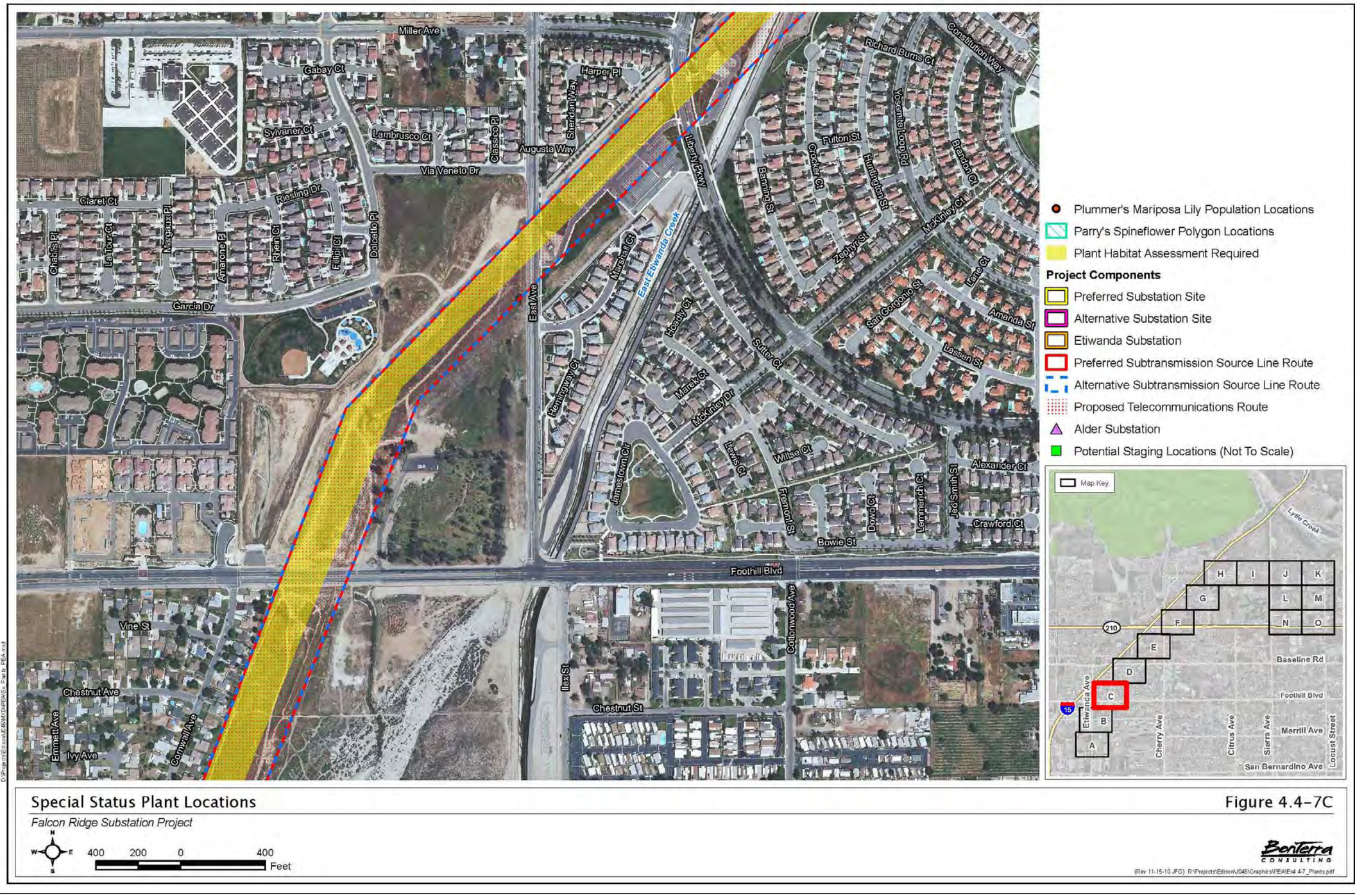

Special Status Plant Locations

Falcon Ridge Substation Project

Figure 4.4-7C

(Rev 11-15-10 JFC) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-7_Plants.pdf

Special Status Plant Locations

Falcon Ridge Substation Project

Figure 4.4-7D

N W E S 400 200 0 400 Feet

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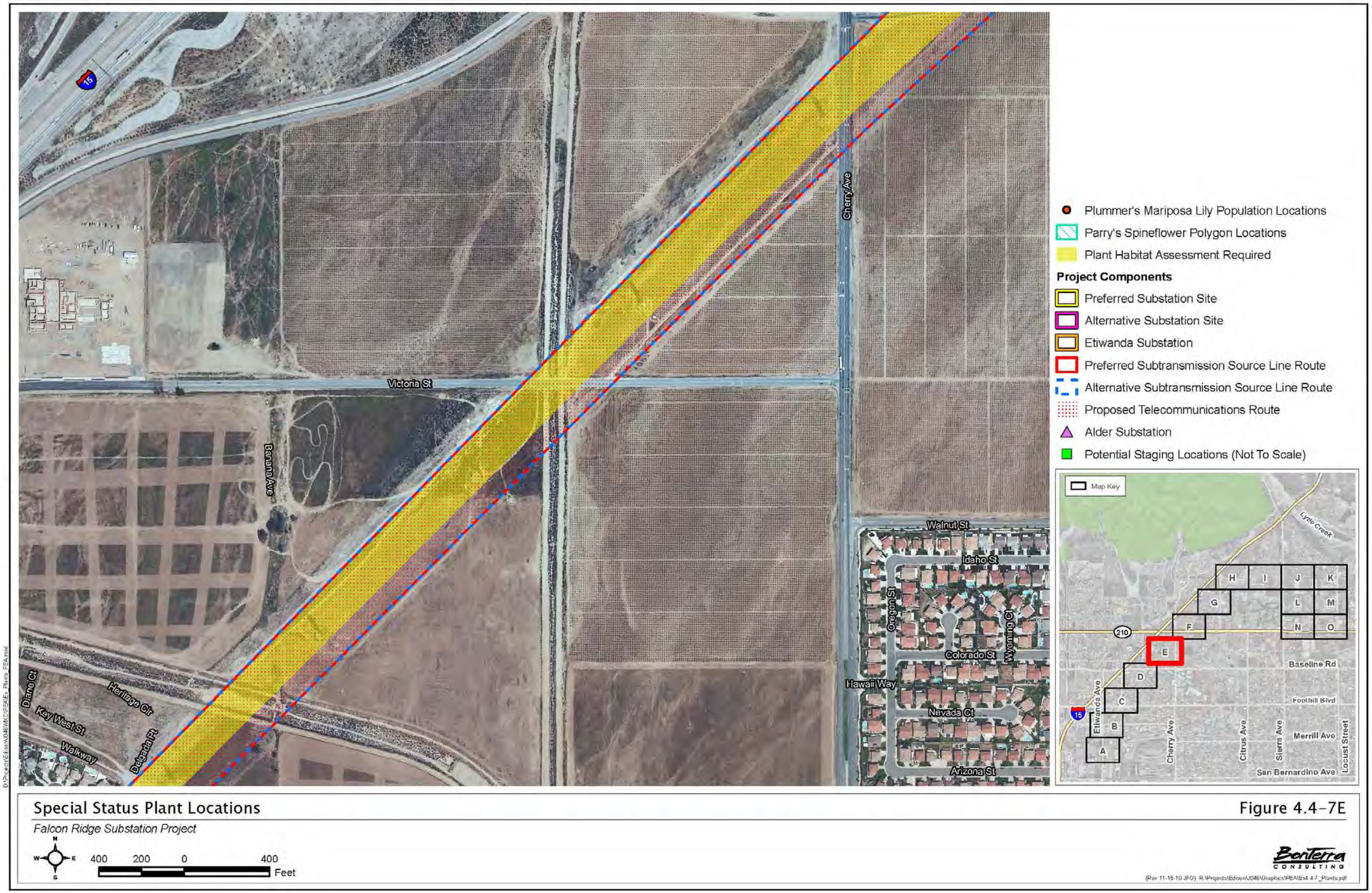

Special Status Plant Locations

Figure 4.4-7E

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

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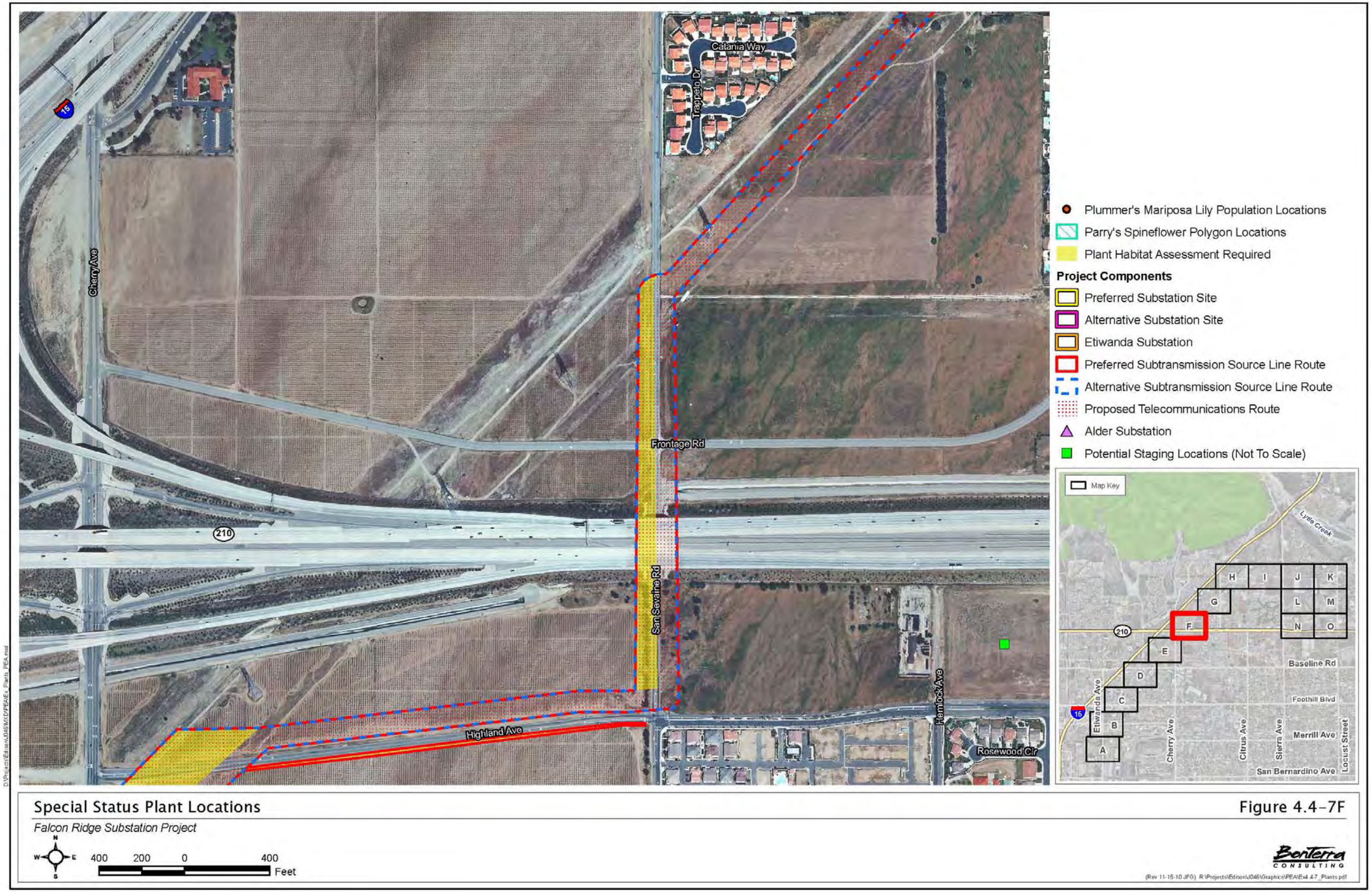
(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-7_Plants.pdf


Catania Way
Trappero Dr
Cherry Ave
Frontage Rd
San Sevaine Rd
Highland Ave
Hemlock Ave
Rosewood Cir
210
15
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Map Key
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
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Special Status Plant Locations
Falcon Ridge Substation Project
400 200 0 400
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Figure 4.4-7F
Bonterra CONSULTING
(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Es4.4-7_Plants.pdf
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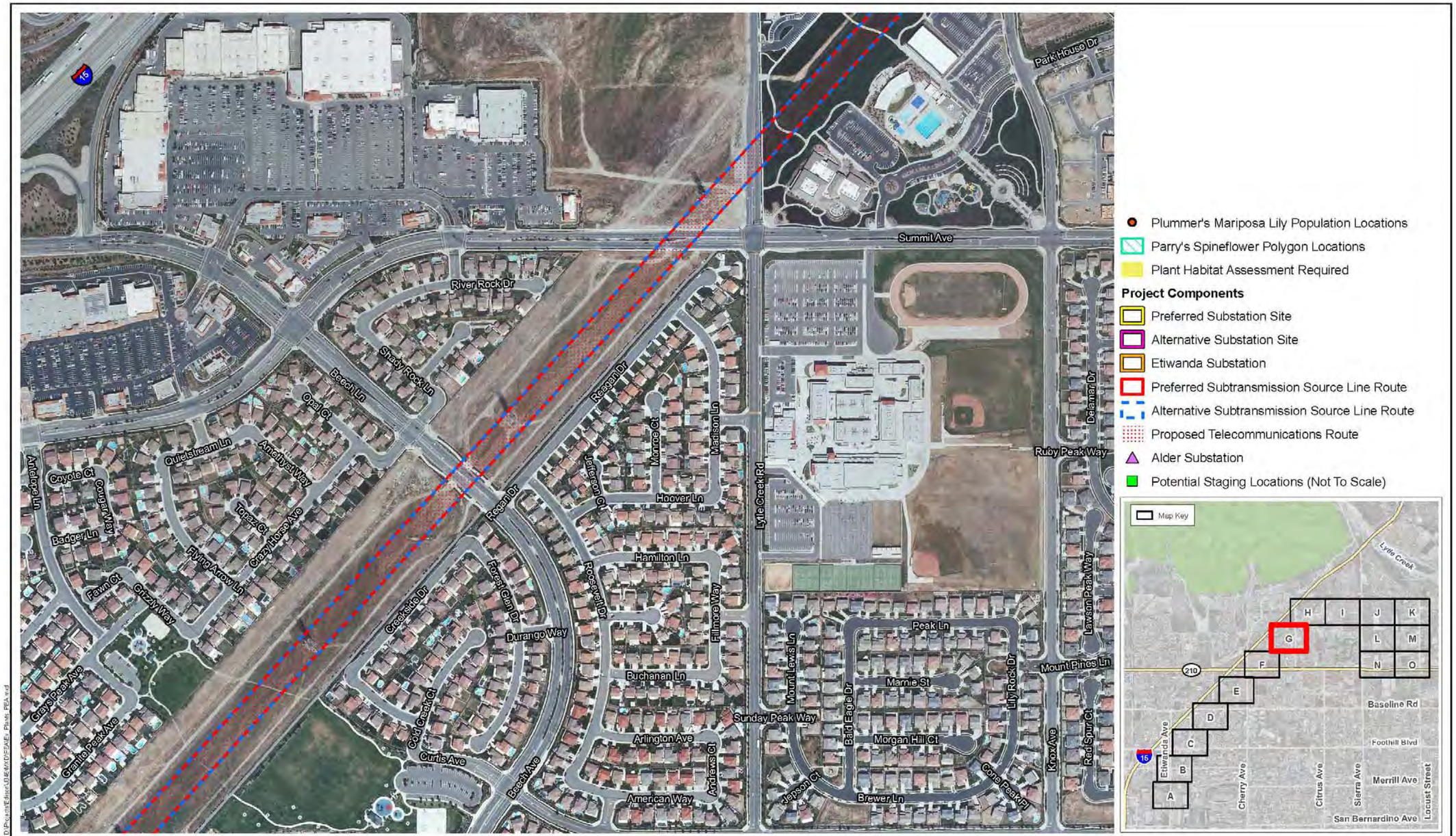


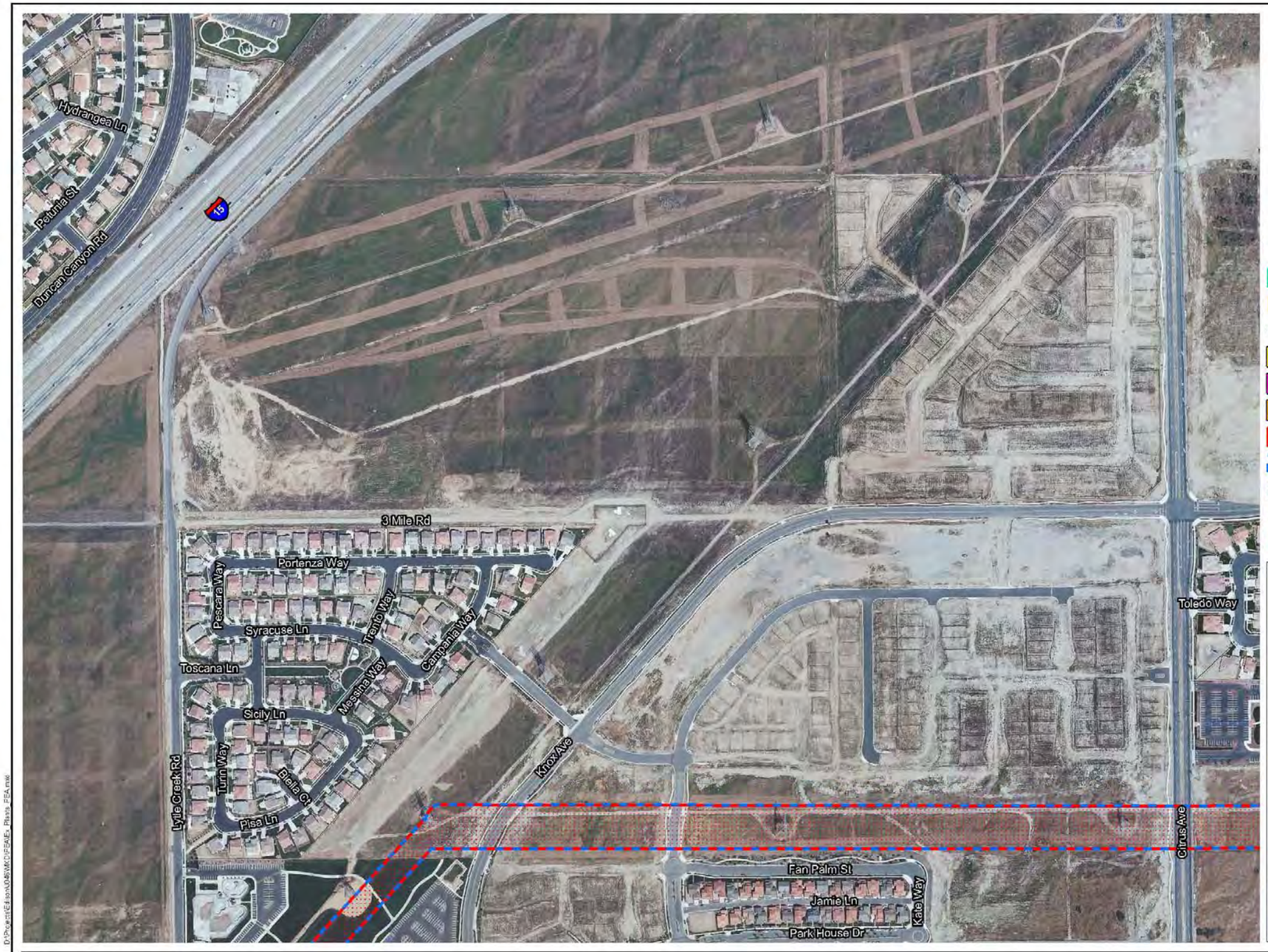
Special Status Plant Locations

Falcon Ridge Substation Project

Figure 4.4-7G

400 200 0 400 Feet

(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Exh 4-7_Plants.pdf



Special Status Plant Locations

Falcon Ridge Substation Project

Figure 4.4-7H

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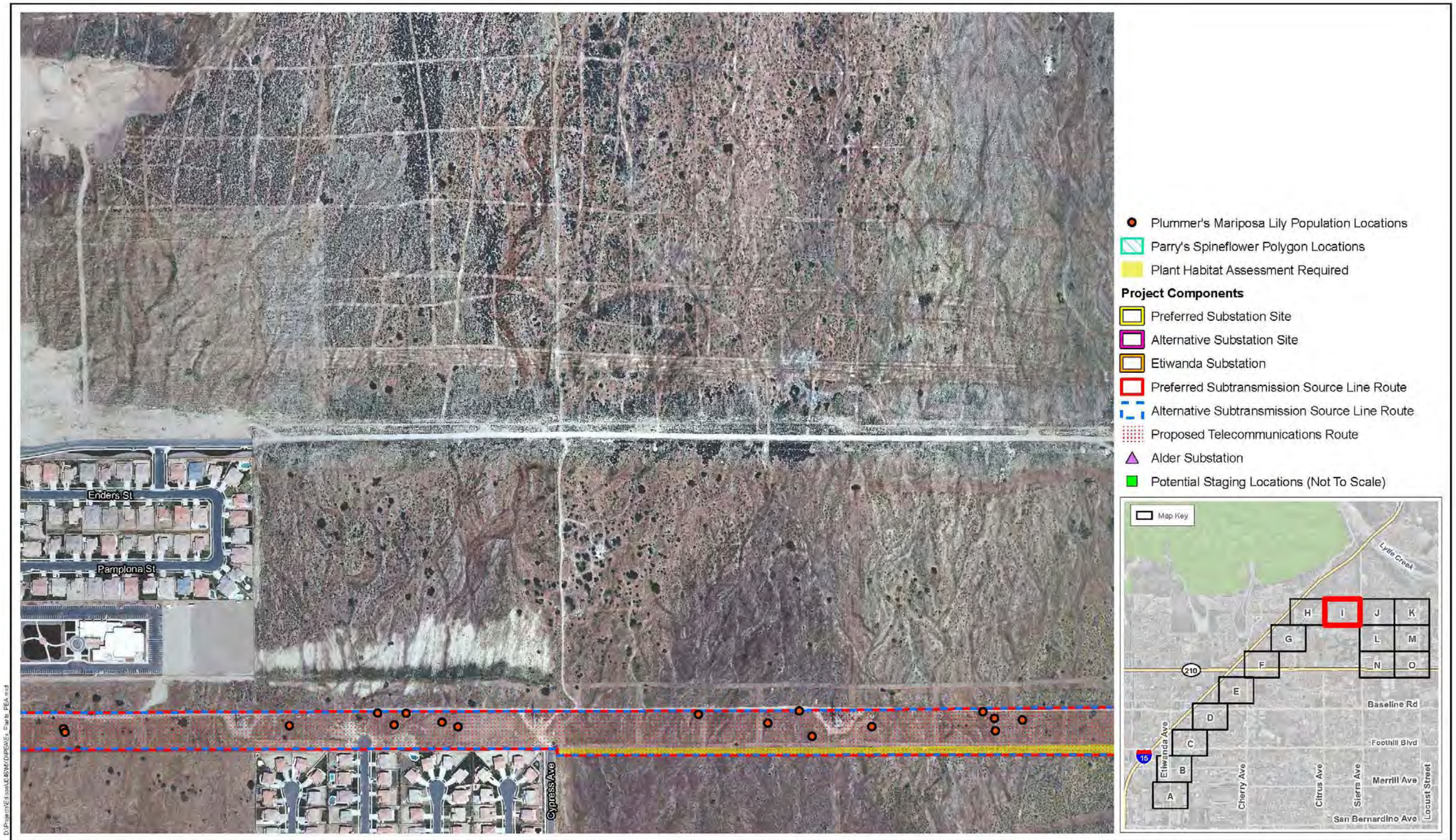
(Rev 11-15-10 JFG) R:\Projects\Edison\J048\Graphics\PEA\Ex4.4-7_Plants.pdf


Ender's St
Pamplona St
Cypress Ave
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Map Key
Lytle Creek
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Foothill Blvd
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Merrill Ave
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Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
San Bernardino Ave
Special Status Plant Locations
Falcon Ridge Substation Project
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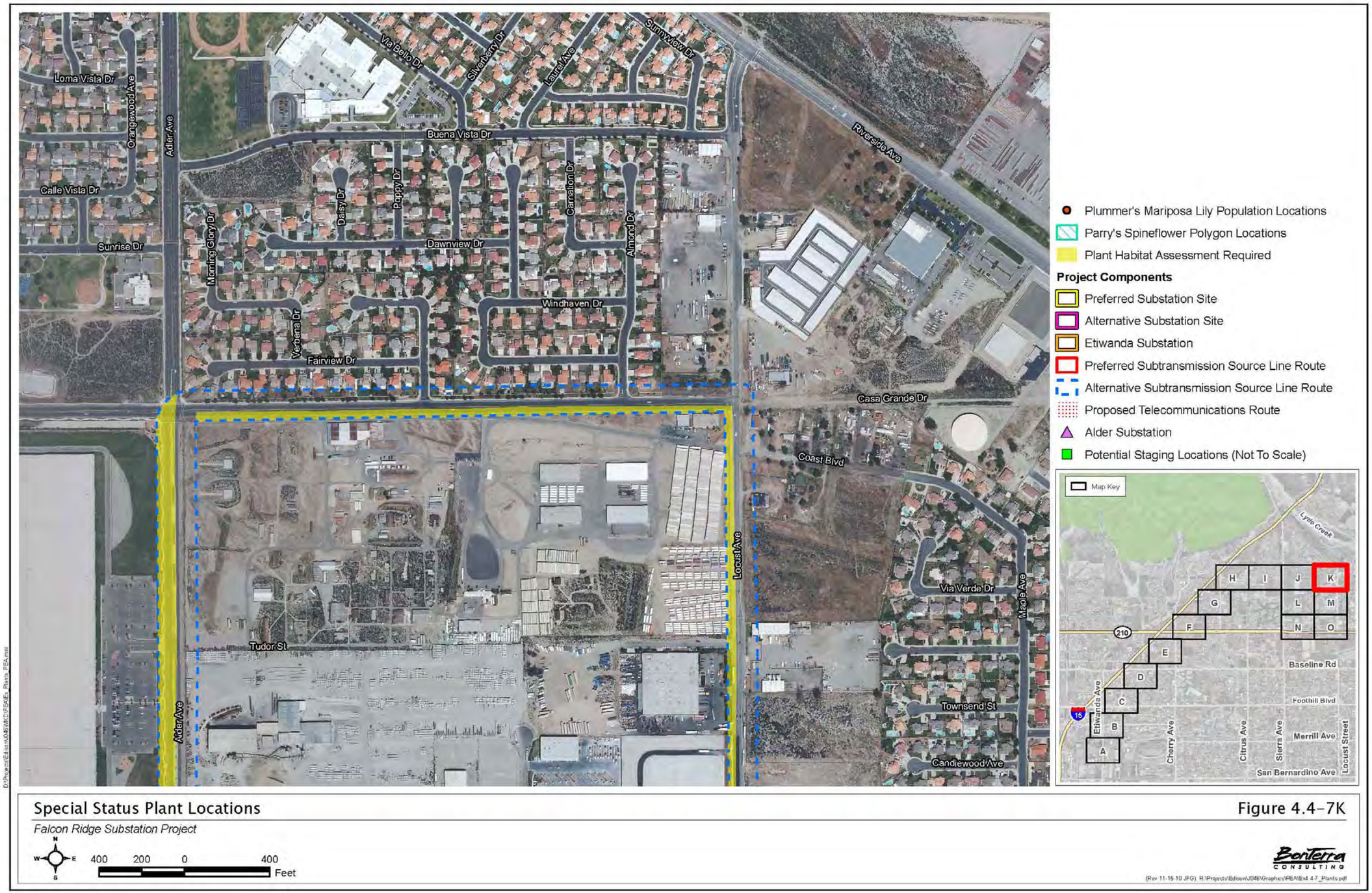
Figure 4.4-7I
Berlerra CONSULTING
(Rev 11-15-10 JFC) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-7_Plants.pdf

Special Status Plant Locations

Falcon Ridge Substation Project

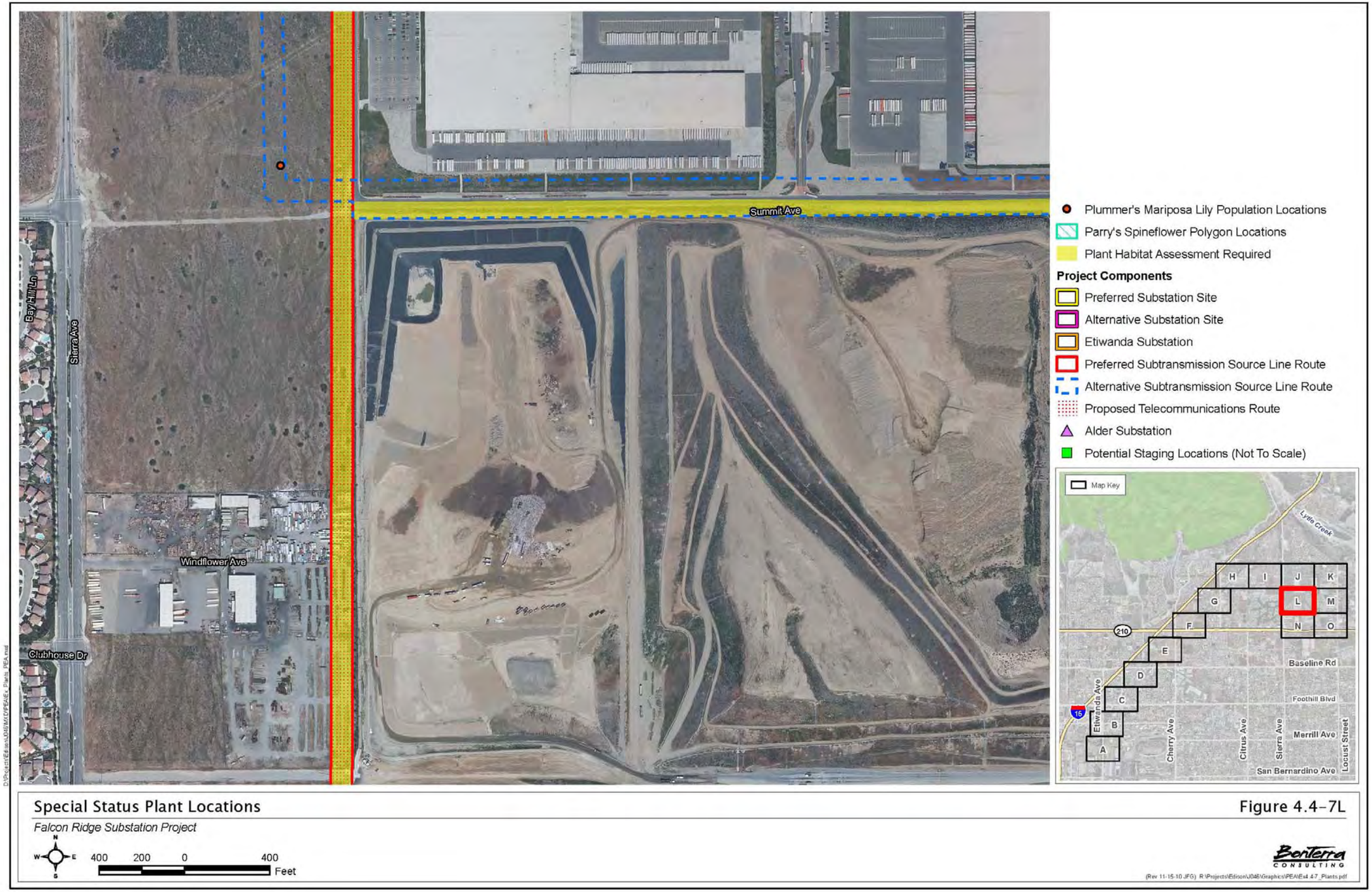
Figure 4.4-7J



Special Status Plant Locations

Figure 4.4-7K

Falcon Ridge Substation Project


Summit Ave
Bay Hill Dr
Sierra Ave
Windflower Ave
Clubhouse Dr
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
Map Key
Lytle Creek
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Foothill Blvd
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Etiwanda Ave
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Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
Locust Street
San Bernardino Ave
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Special Status Plant Locations
Figure 4.4-7L
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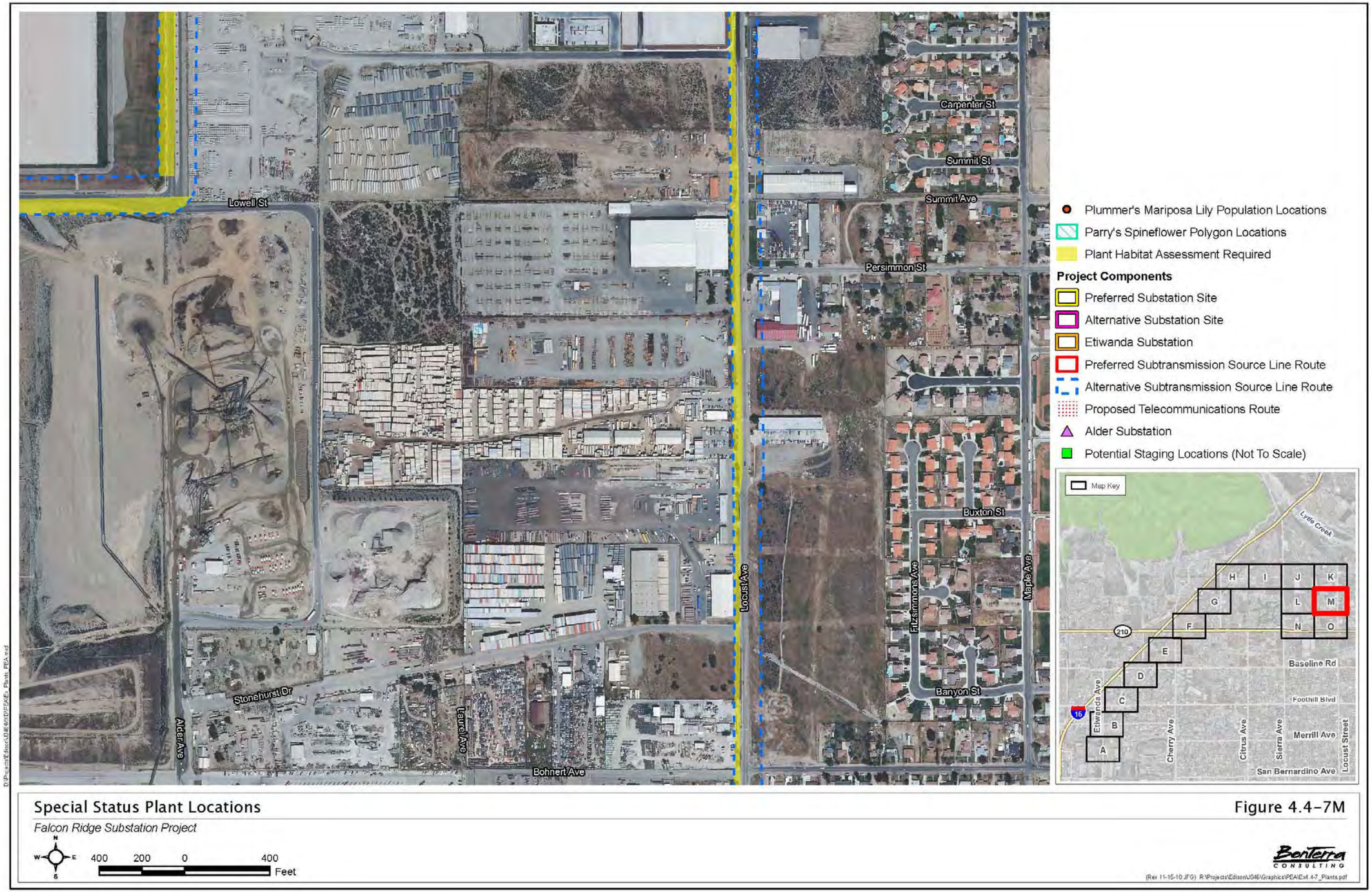
Lowell St
Carpenter St
Summit St
Summit Ave
Persimmon St
Buxton St
Fitzsimmons Ave
Maple Ave
Banyon St
Locust Ave
Alder Ave
Stonehurst Dr
Laurel Ave
Bohnert Ave
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
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San Bernardino Ave
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Figure 4.4-7M
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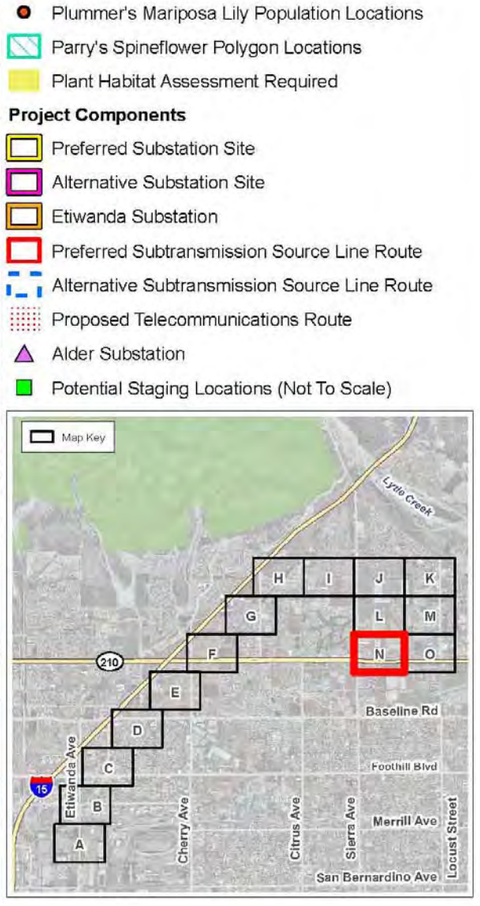

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Special Status Plant Locations

Figure 4.4-7N

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

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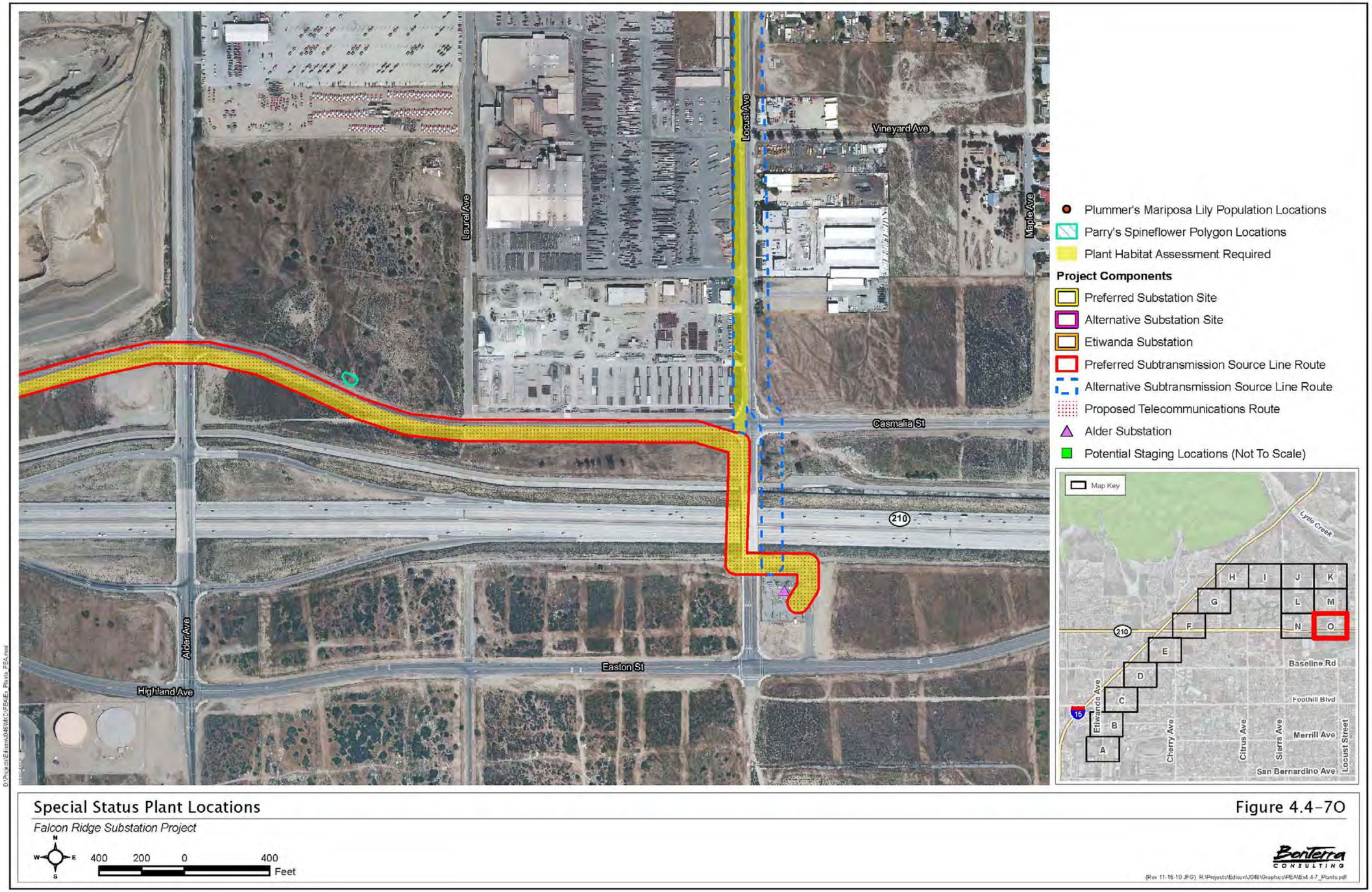
(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-7_Plants.pdf



Special Status Plant Locations

Figure 4.4-70

Falcon Ridge Substation Project

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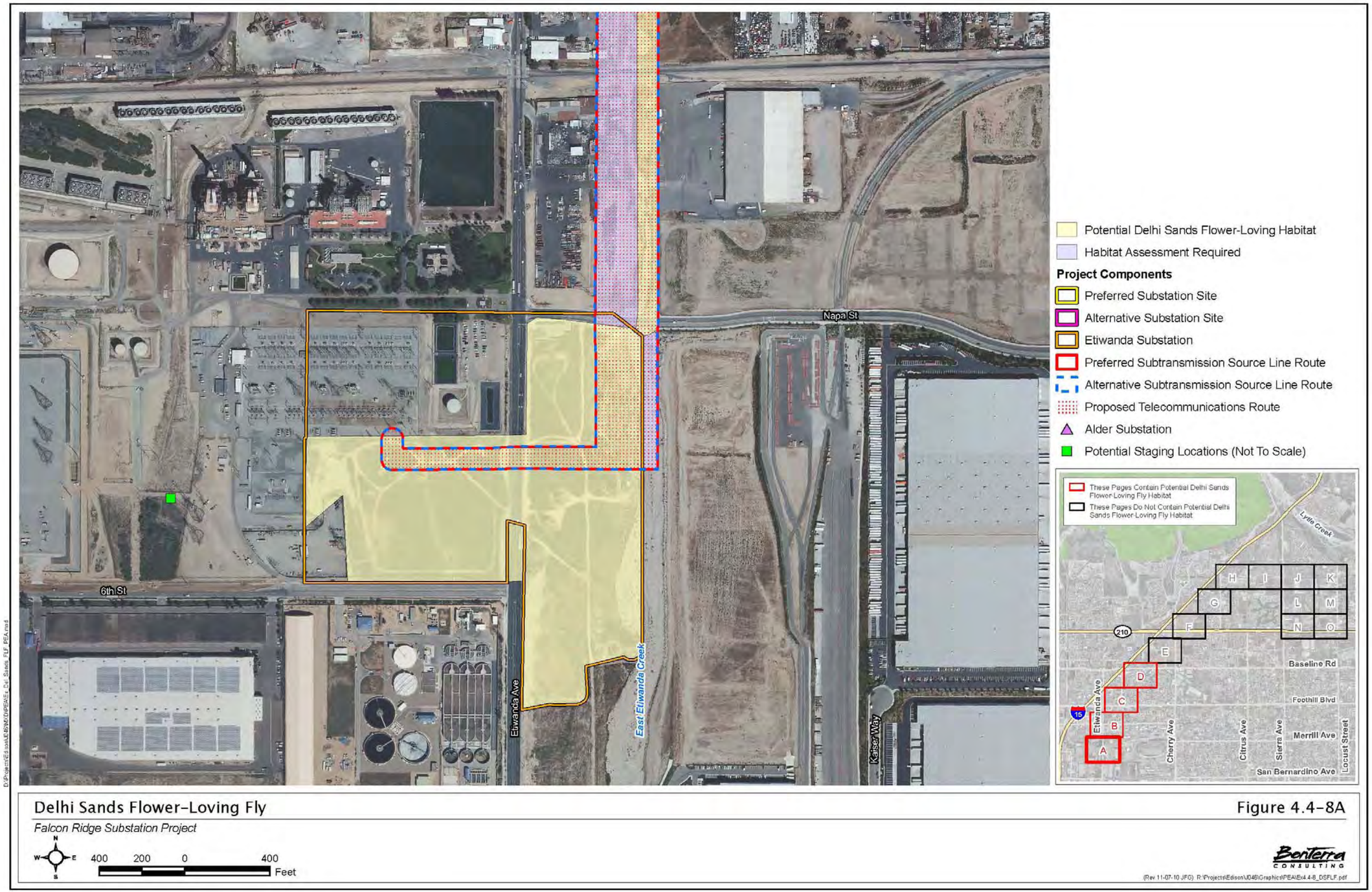
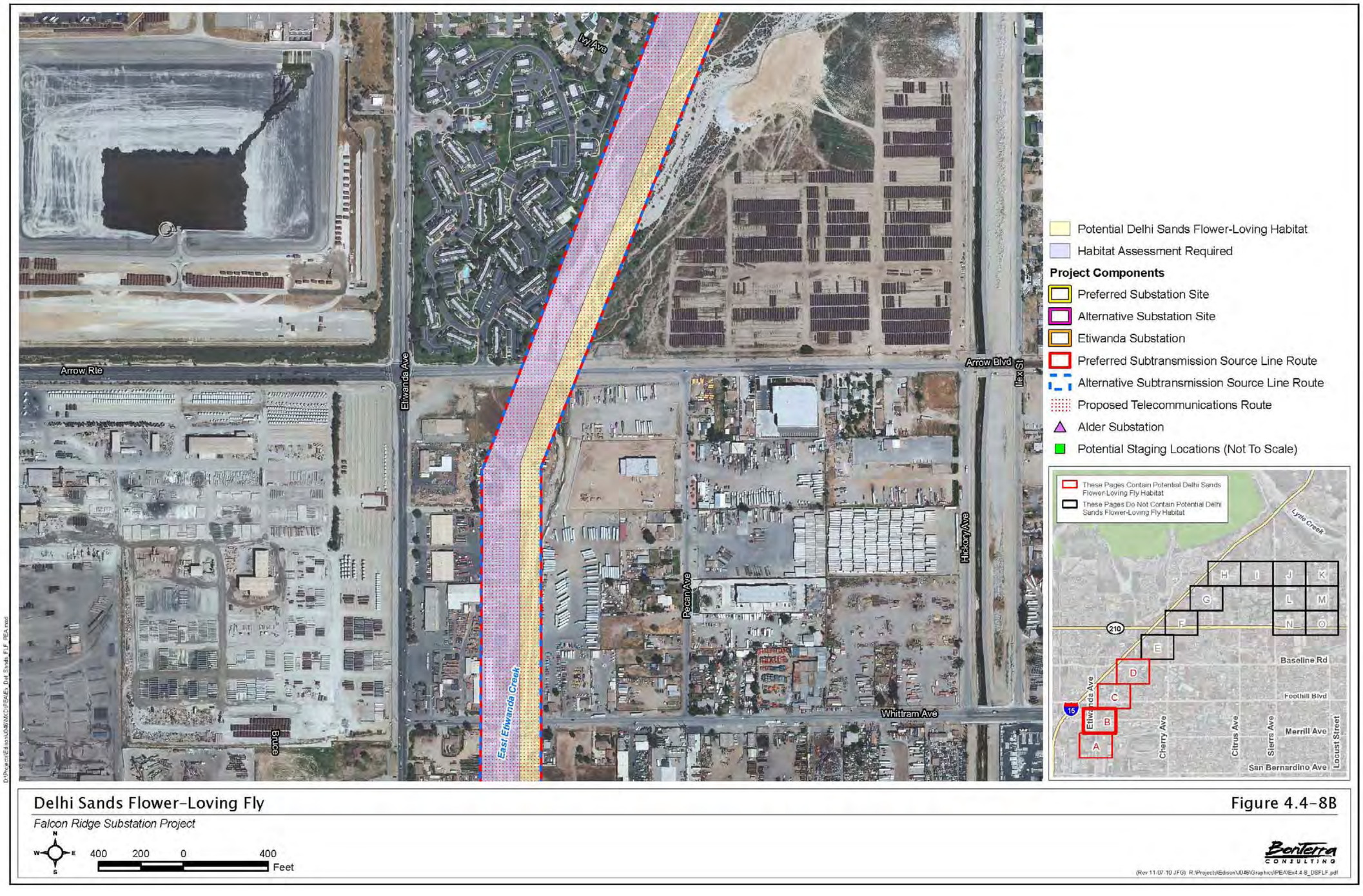


Delhi Sands Flower-Loving Fly

Figure 4.4-8A

Falcon Ridge Substation Project

(Rev 11-07-10 JFC) R:\Projects\Edison\JD46\Graphics\PEA\Ex4.4-8_DSFLF.pdf



Delhi Sands Flower-Loving Fly

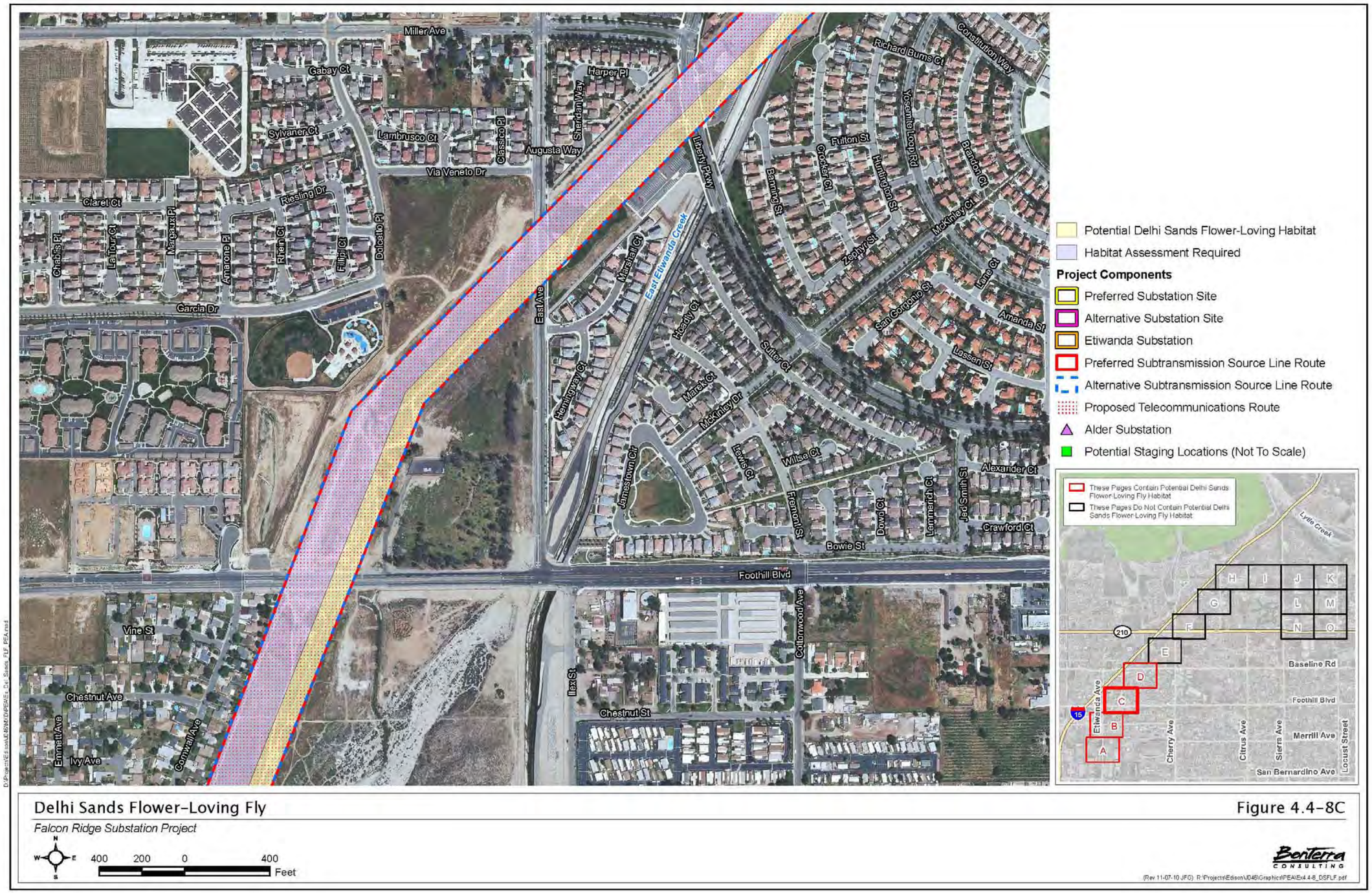
Figure 4.4-8B

Falcon Ridge Substation Project

400 200 0 400 Feet

BonTerra CONSULTING

(Rev 11-07-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-8_DSFLF.pdf



Delhi Sands Flower-Loving Fly

Figure 4.4-8C

Falcon Ridge Substation Project

Beriterra CONSULTING

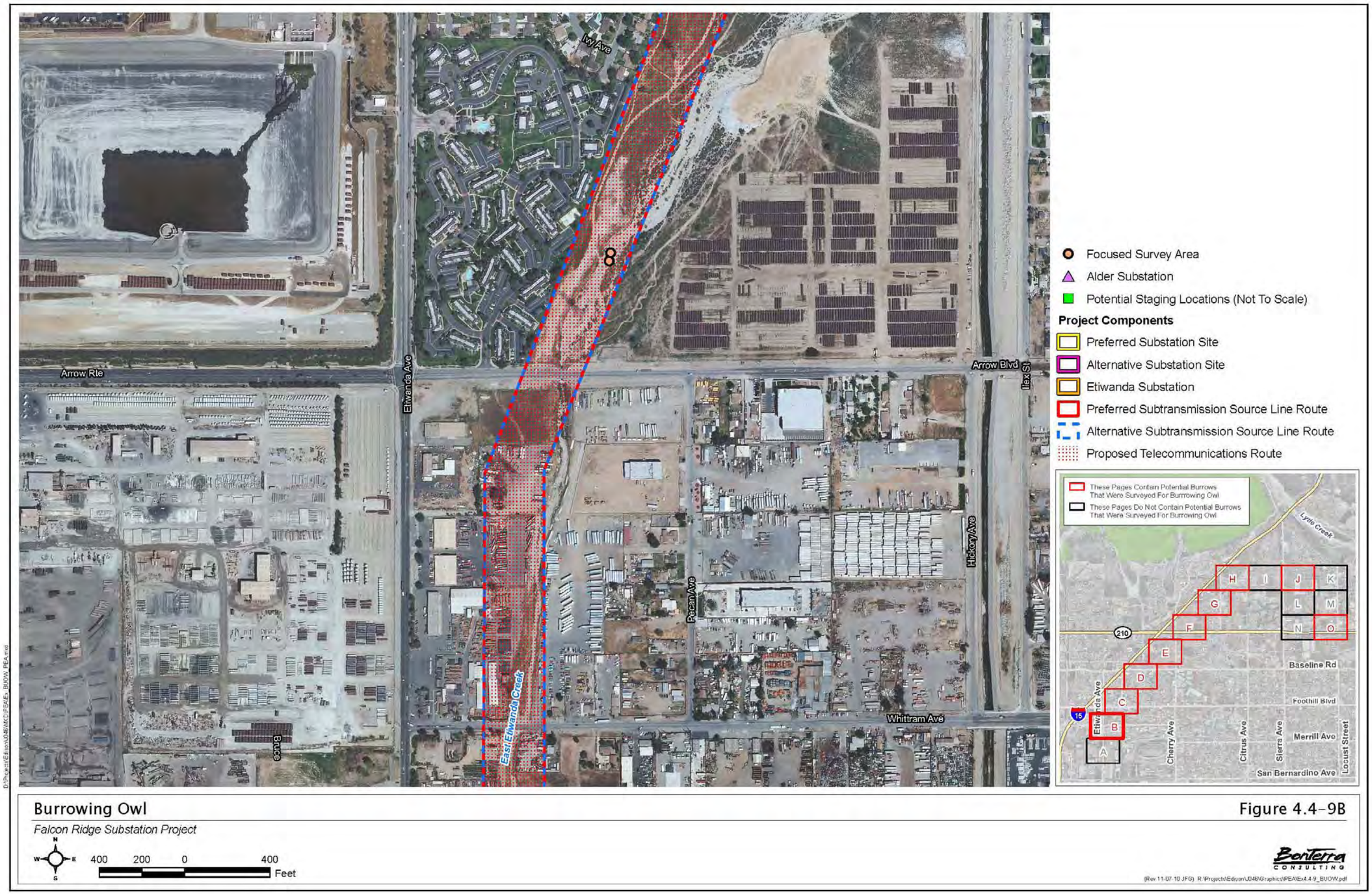
(Rev 11-07-10 JFG) R:\Projects\Edison\JD46\Graphics\PEA\Ex4.4-8_DSFLF.pdf

Delhi Sands Flower-Loving Fly

Figure 4.4-8D

Falcon Ridge Substation Project

(Rev 11-07-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-8_DSFLF.pdf



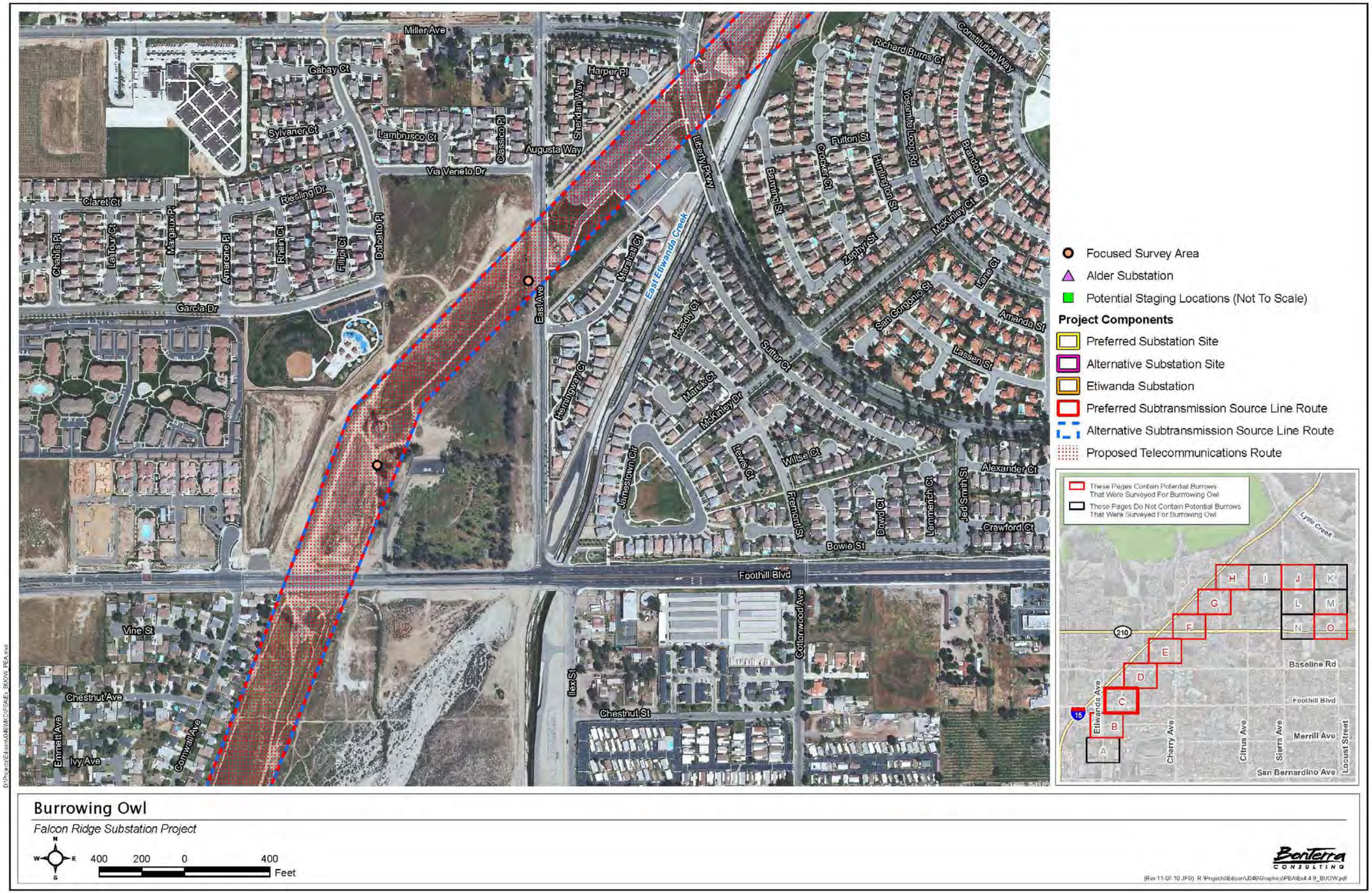
Burrowing Owl — **Figure 4.4-9B**

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

Bonterra Consulting

(Rev 11-07-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-9_BUOW.pdf



Burrowing Owl

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

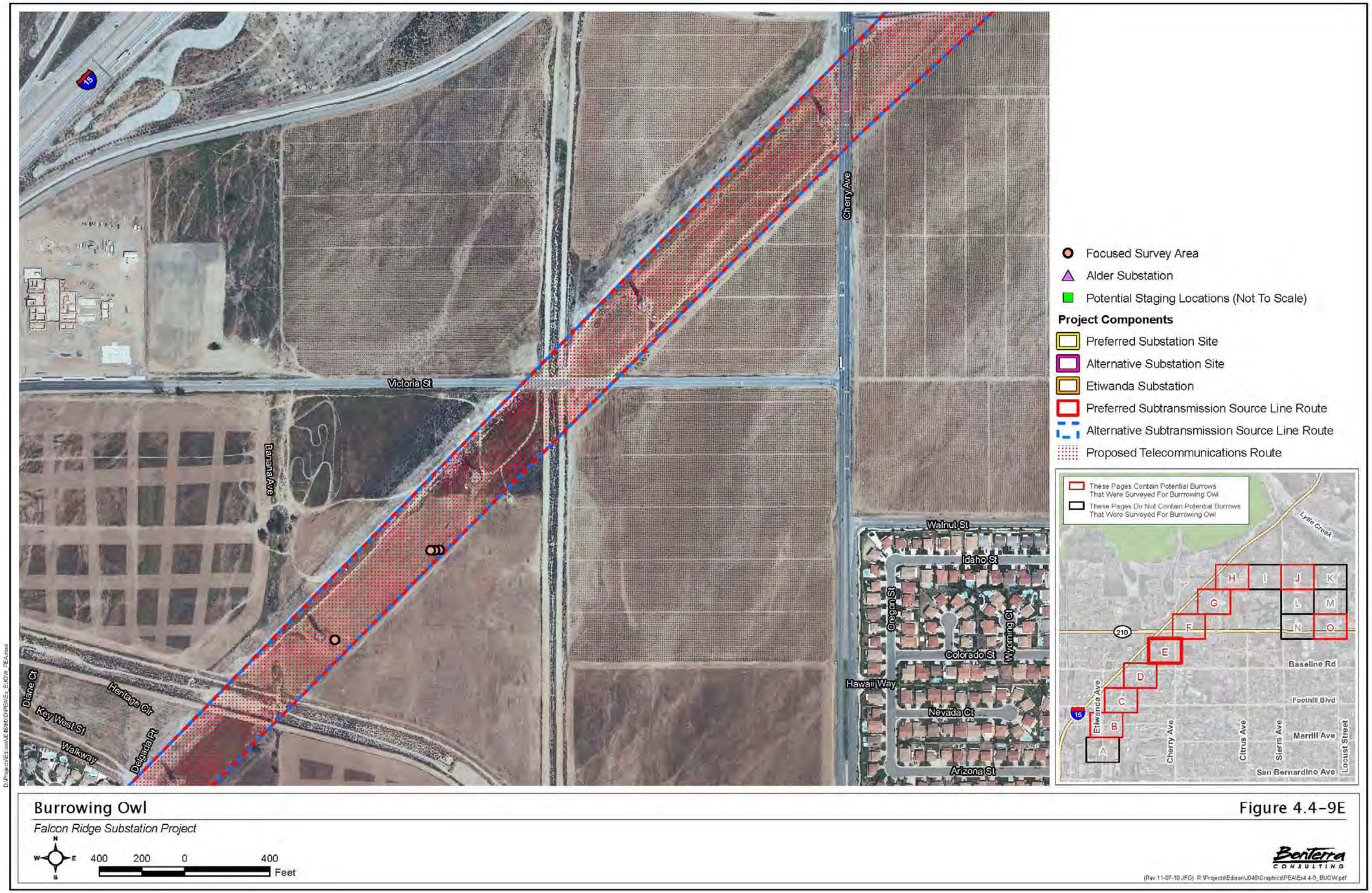
(Rev 11-07-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-9_BUOW.pdf

Burrowing Owl — **Figure 4.4-9D**

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

(Rev 11-07-10 JFG) R:\Projects\Edison\0946\Graphics\PEA\Fig 4.4-9_BUOW.pdf



Burrowing Owl

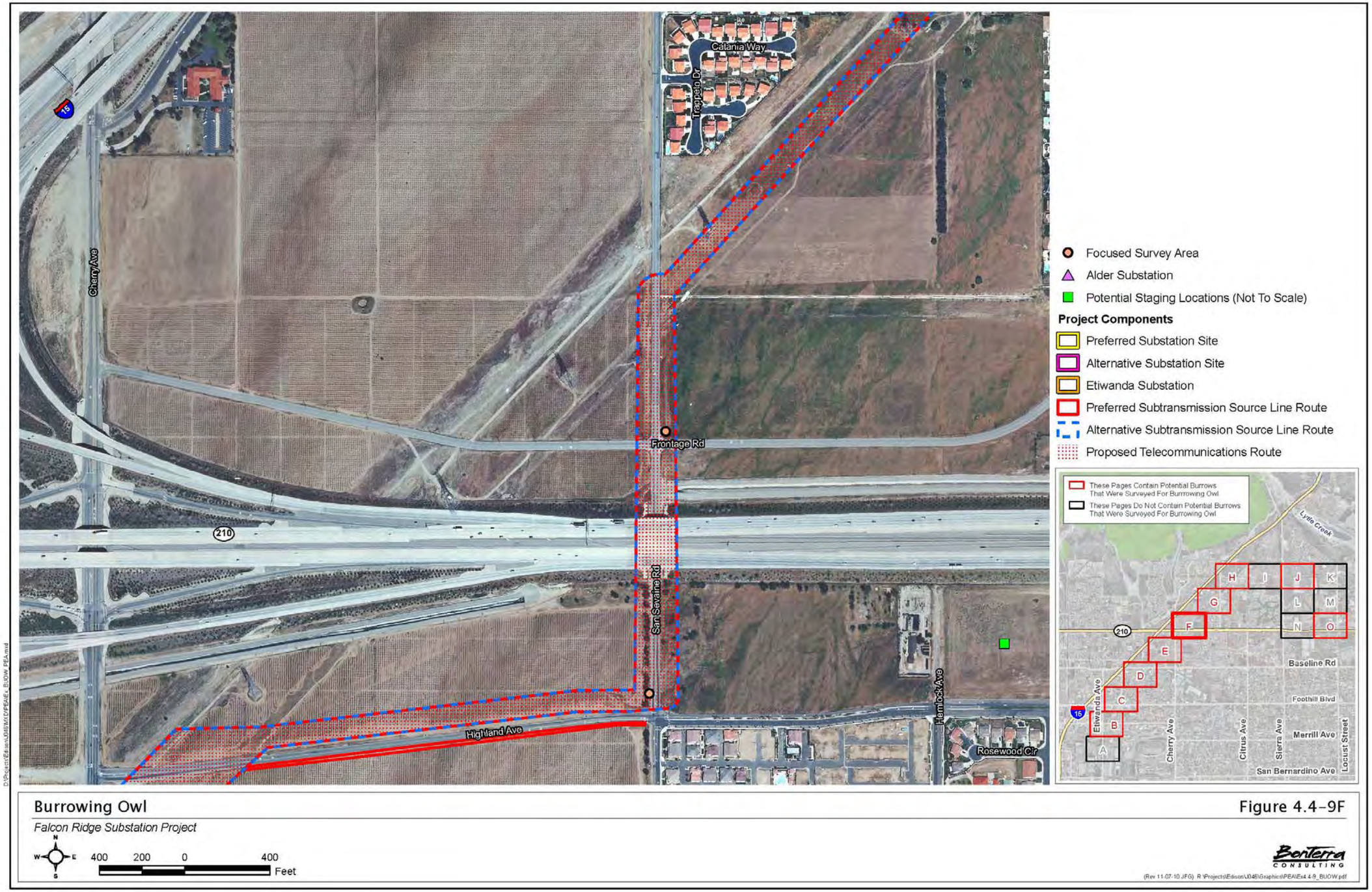
Figure 4.4-9E

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

Beriterra CONSULTING

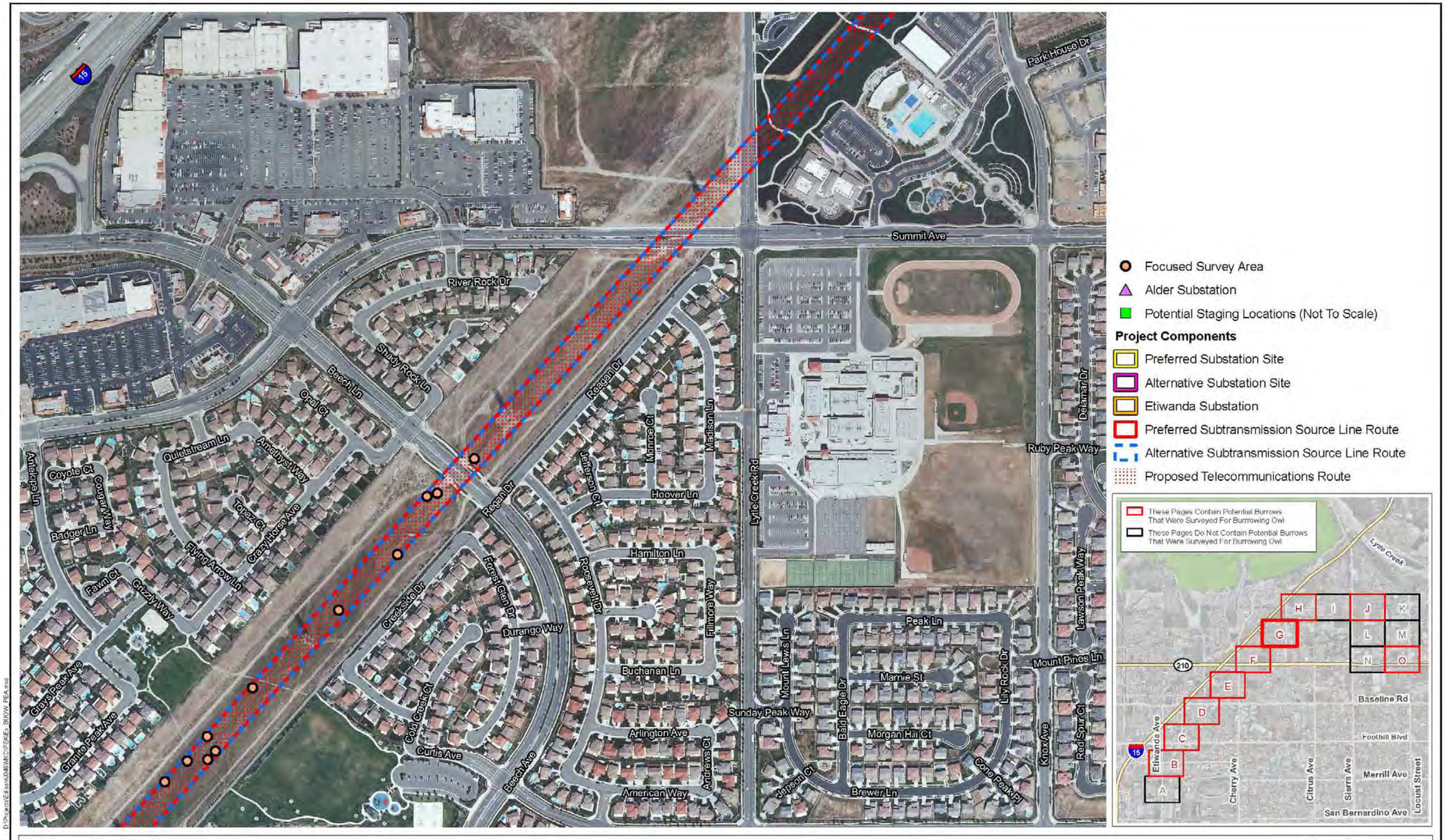
(Rev 11-07-10 JFG) R:\Projects\Edison\J045\Graphics\PEA\Ex4.4-9_BUOW.pdf

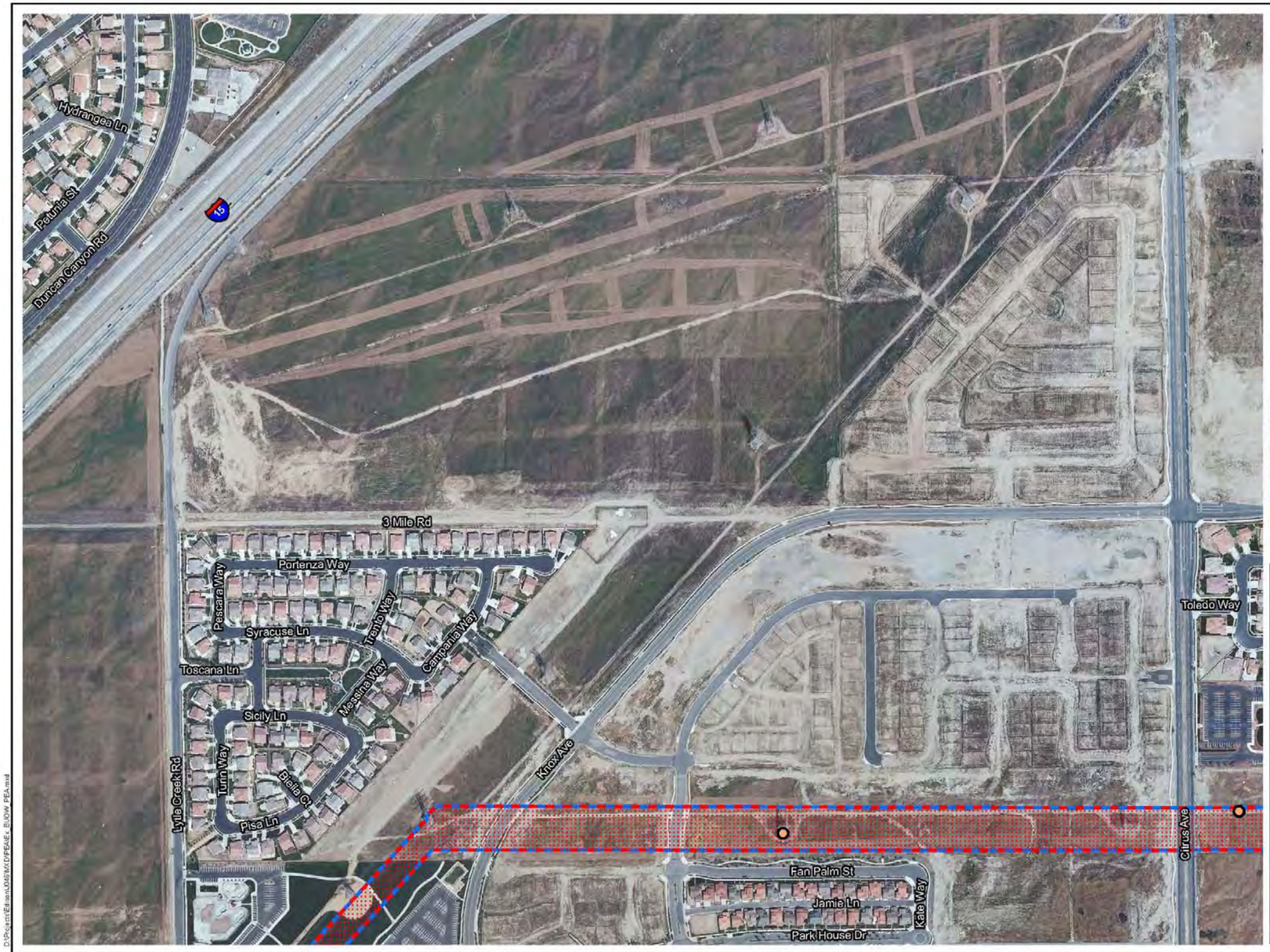


Burrowing Owl

Figure 4.4-9F

Falcon Ridge Substation Project


Focused Survey Area
Alder Substation
Potential Staging Locations (Not To Scale)
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
These Pages Contain Potential Burrows That Were Surveyed For Burrowing Owl
These Pages Do Not Contain Potential Burrows That Were Surveyed For Burrowing Owl
Summit Ave
Park House Dr
River Rock Dr
Shady Rock Ln
Beech Ln
Opal Ct
Quietstream Ln
Amethyst Way
Coyote Ct
Cougar Way
Badger Ln
Topaz Ct
Crazy Horse Ave
Flying Arrow Ln
Fawn Ct
Grizzly Way
Crazy Peak Ave
Granite Peak Ave
Regan Dr
Jefferson Ct
Monroe Ct
Madison Ln
Hoover Ln
Hamilton Ln
Fillmore Way
Roosevelt Dr
Forest Glen Dr
Creekside Dr
Durango Way
Buchanan Ln
Cold Creek Ct
Arlington Ave
Curtis Ave
Beech Ave
Andrews Ct
American Way
Reagan Dr
Ruby Peak Way
Delamar Dr
Lyle Creek Rd
Peak Ln
Marnie St
Morgan Hill Ct
Brewer Ln
Jepson Ct
Cone Peak Pl
Mount Lewis Ln
Bald Eagle Dr
Lily Rock Dr
Knox Ave
Red Spur Ct
Lawson Peak Way
Mount Pines Ln
Sunday Peak Way
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
210
15
Burrowing Owl
Falcon Ridge Substation Project
400 200 0 400
Feet
Figure 4.4-9G
BonTerra CONSULTING
(Rev 11-07-10 JFG) R:\Projects\Edison\JD46\Graphics\PEA\Ex4.4-9_BUOW.pdf
D:\Projects\Edison\JD46\MXD\FEAs_BUOW_PEA.mxd



Burrowing Owl **Figure 4.4-9H**

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

Bonterra CONSULTING

(Rev 11-07-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-9_BUOW.pdf

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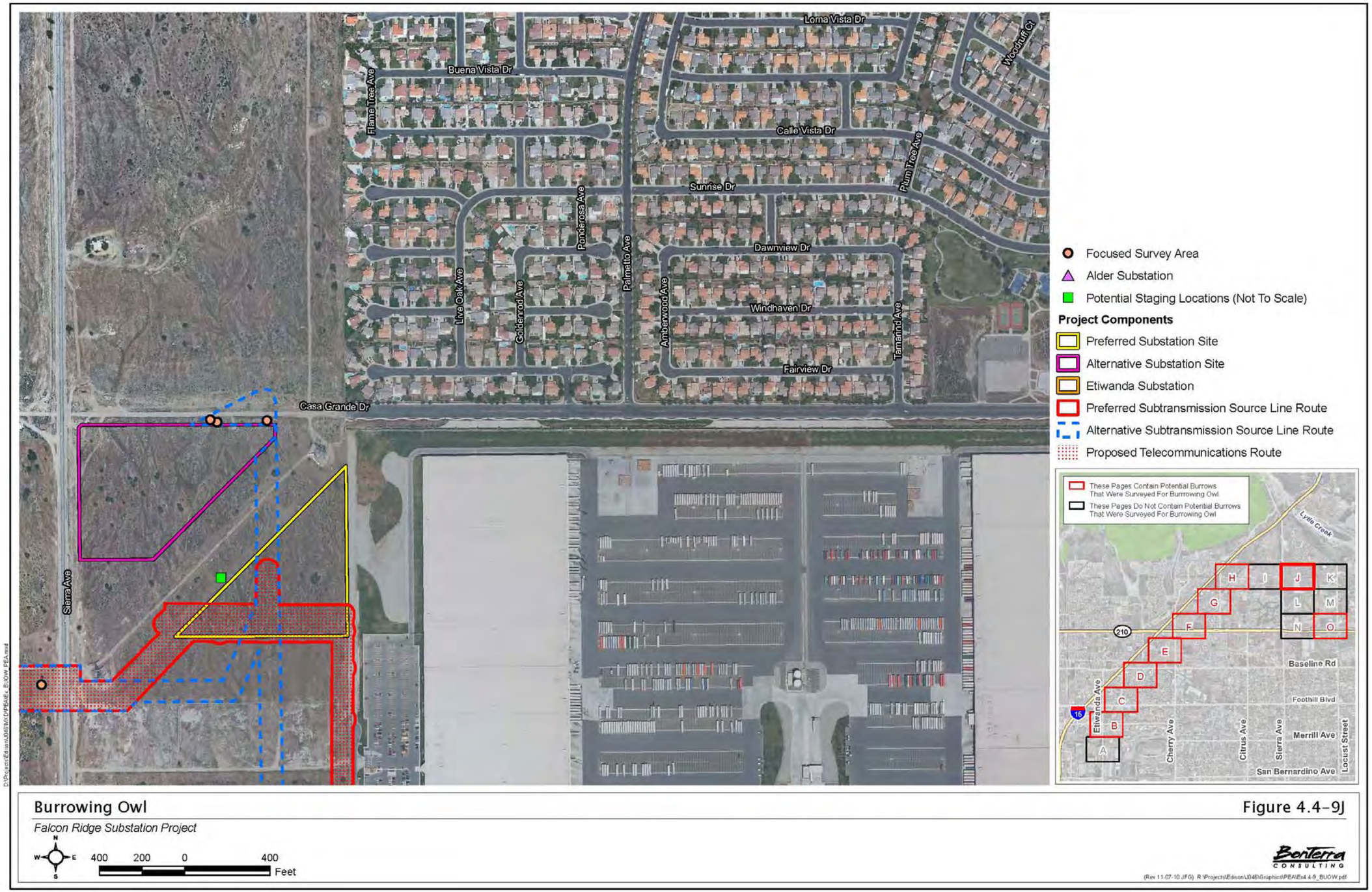
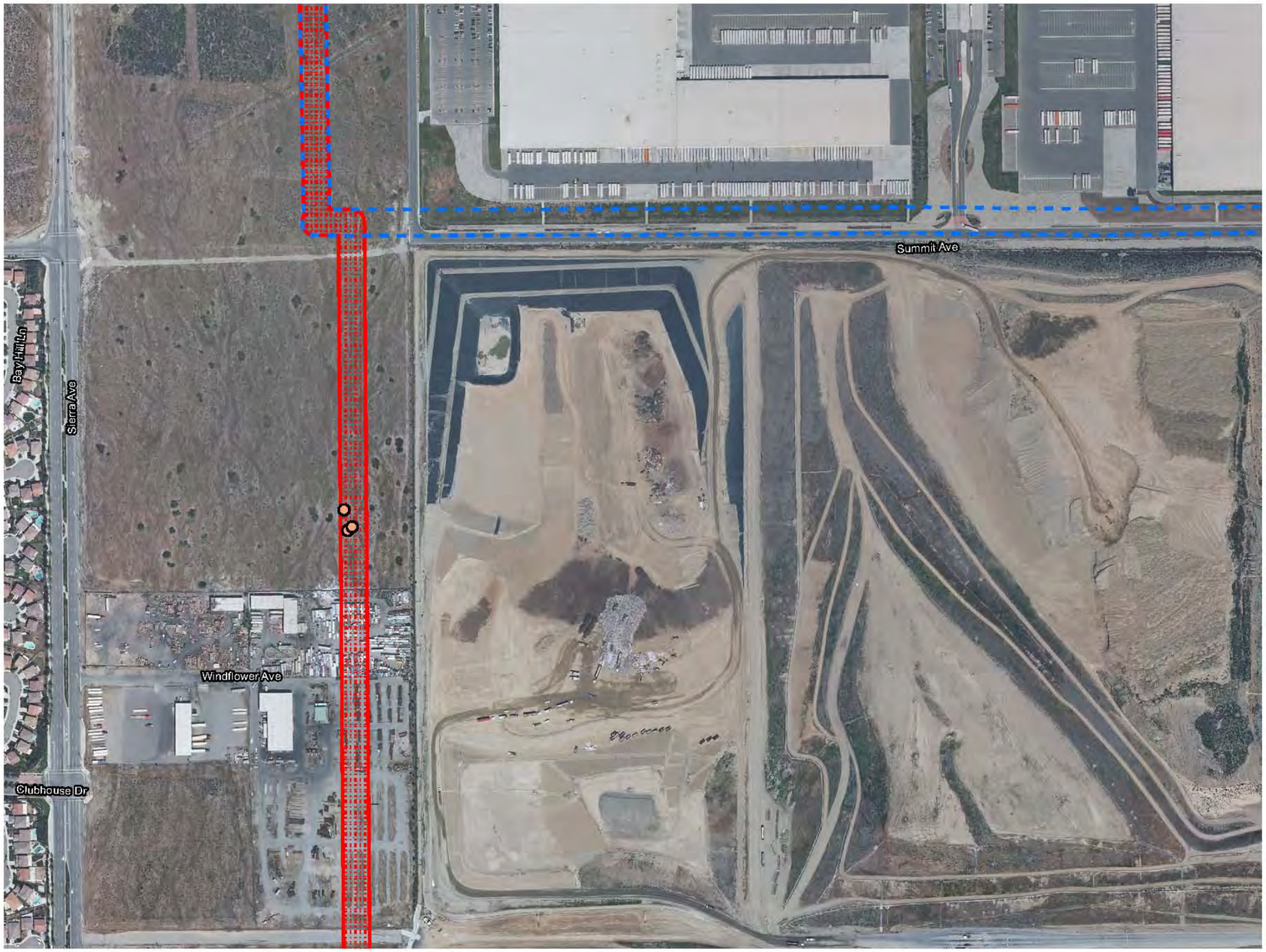


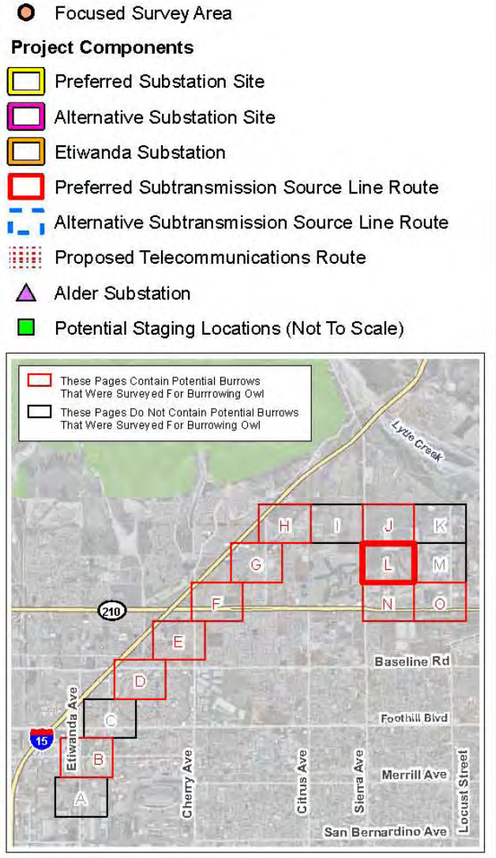
Burrowing Owl — **Figure 4.4-9J**

Falcon Ridge Substation Project

400 200 0 400 Feet

(Rev 11-07-10 JFG) R:\Projects\Edison\046\Graphics\PEA\Ex4.4-9_BUOW.pdf





Burrowing Owl

Figure 4.4-9L

Falcon Ridge Substation Project

400 200 0 400 Feet

(Rev 100510 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-9_BUOW.pdf

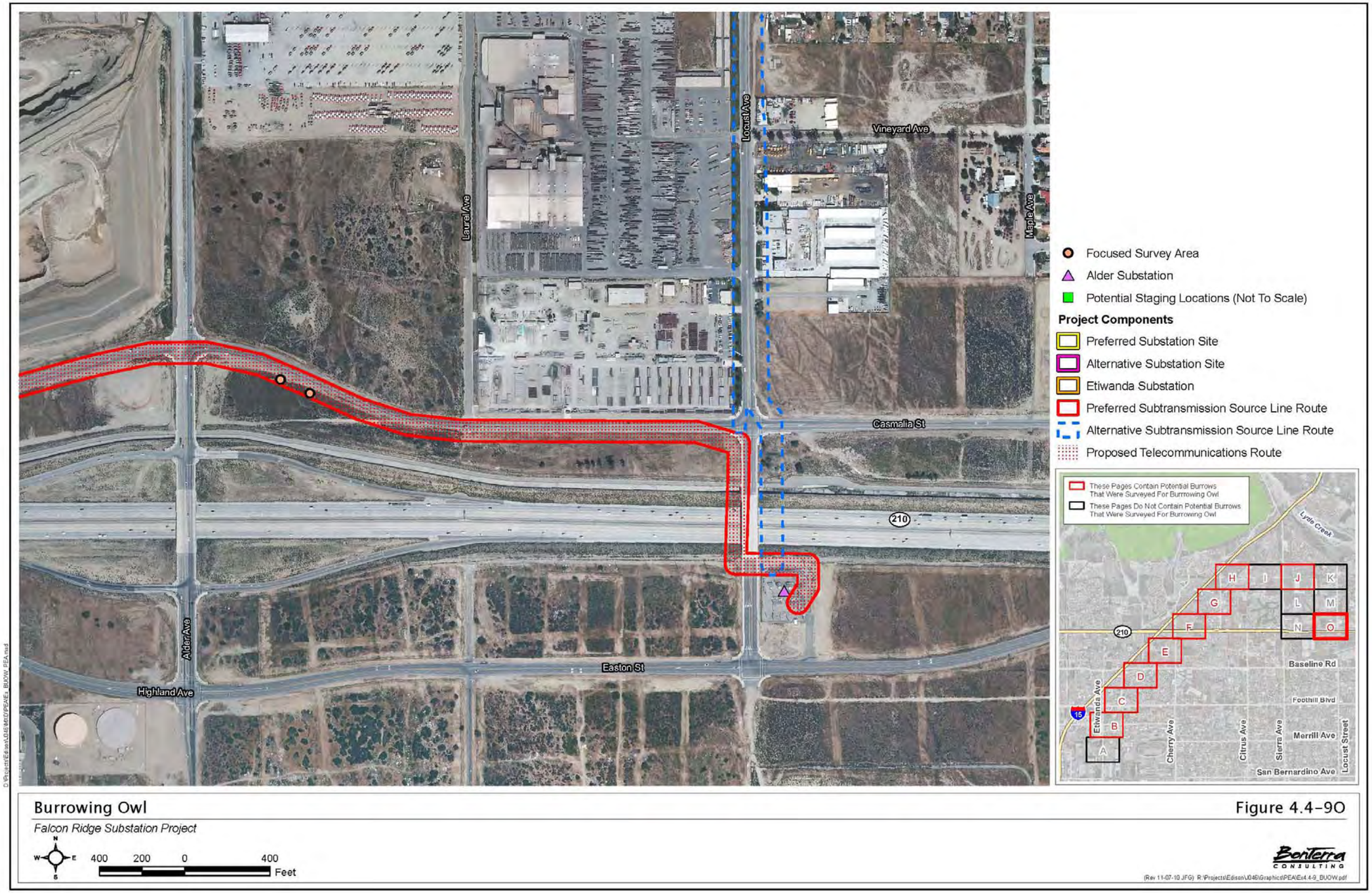
Burrowing Owl

Figure 4.4-9N

Falcon Ridge Substation Project

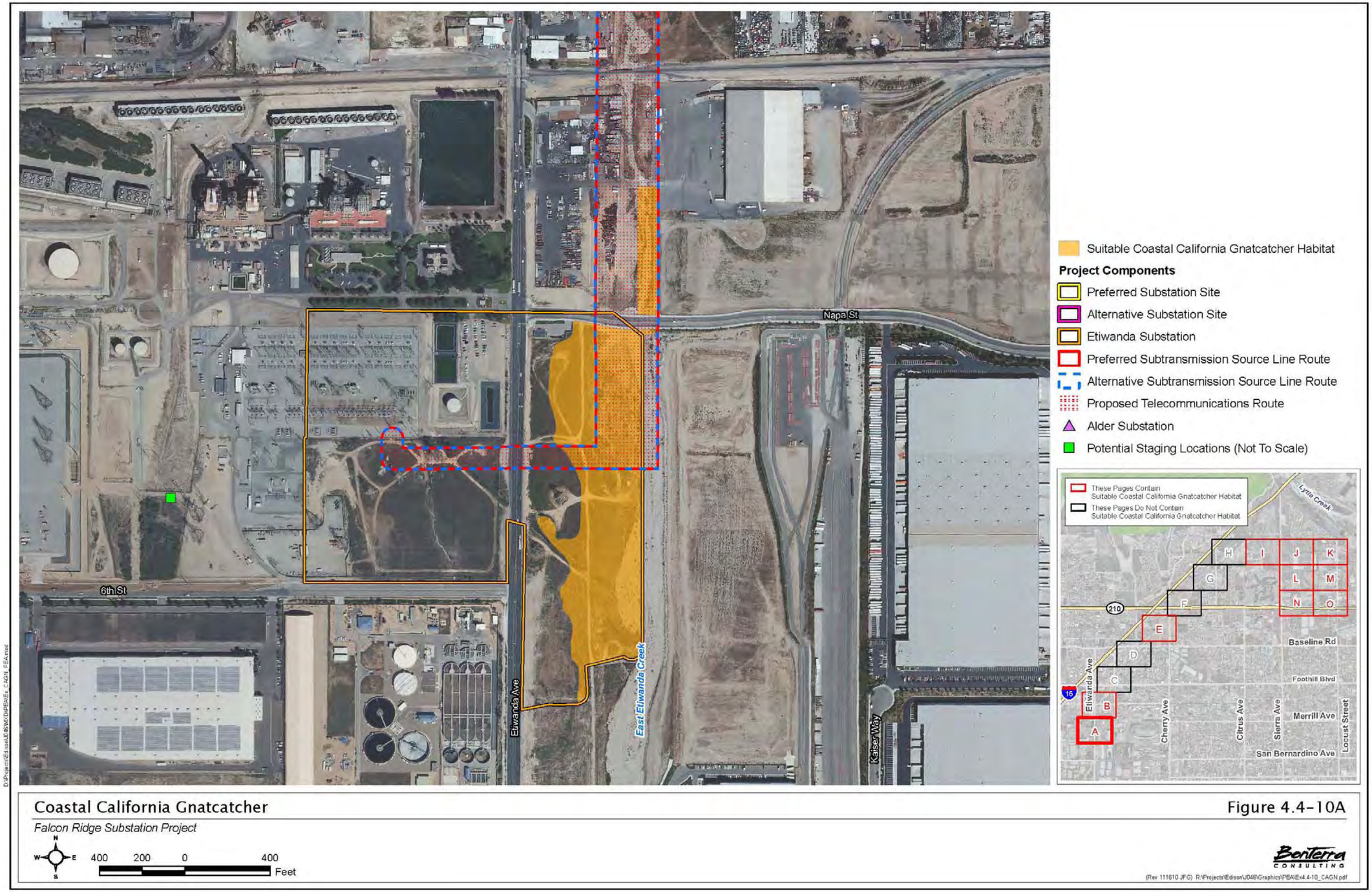
N W E S 400 200 0 400 Feet

(Rev 100510 JFG) R:\Projects\Edison\J040\Graphics\PEA\Ex4.4-9_BUOW.pdf



Burrowing Owl **Figure 4.4-90**

Falcon Ridge Substation Project



Coastal California Gnatcatcher

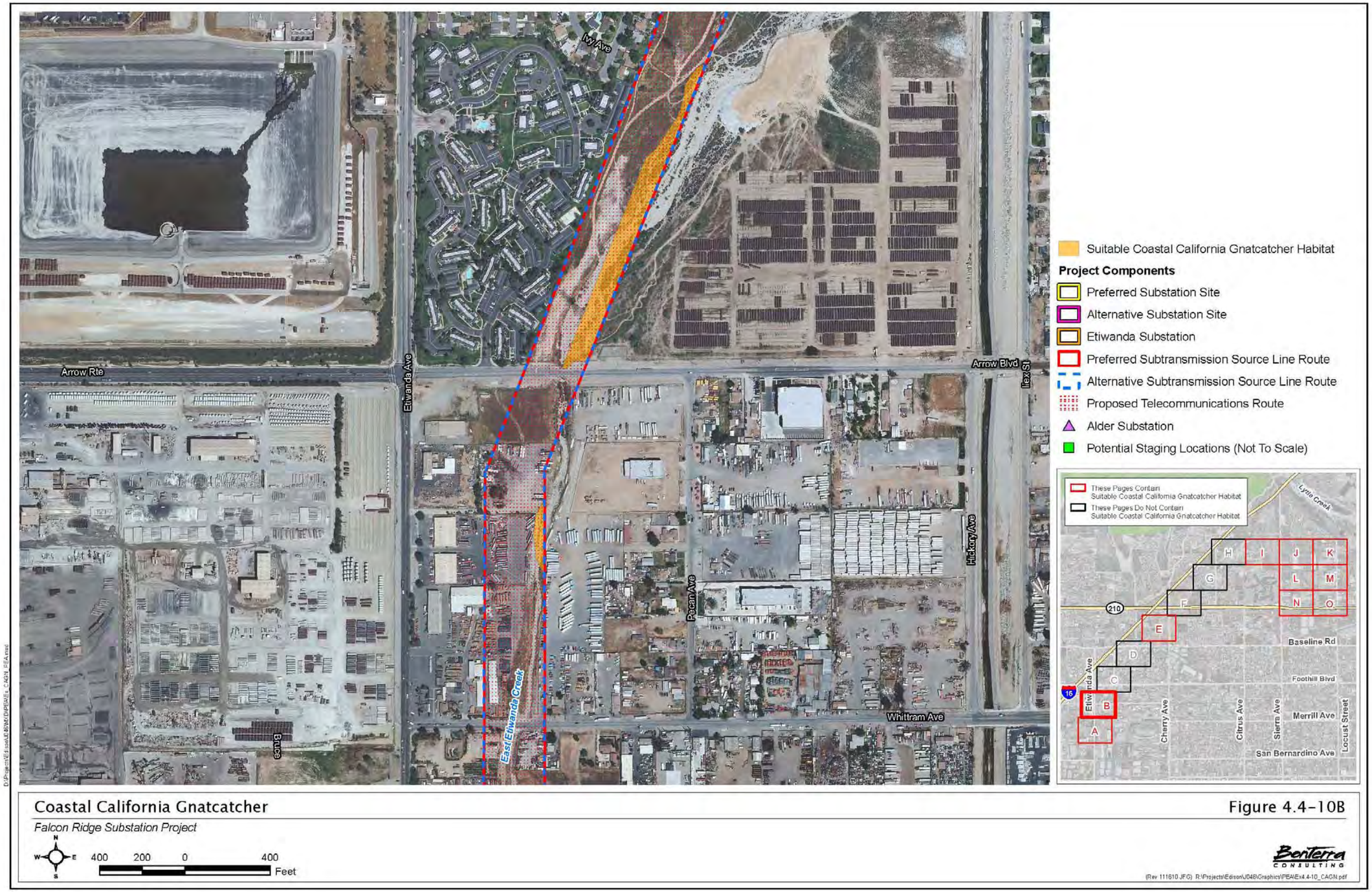
Figure 4.4-10A

Falcon Ridge Substation Project

N W E S 400 200 0 400 Feet

BonTerra CONSULTING

(Rev 111610 JFC) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-10_CAGN.pdf

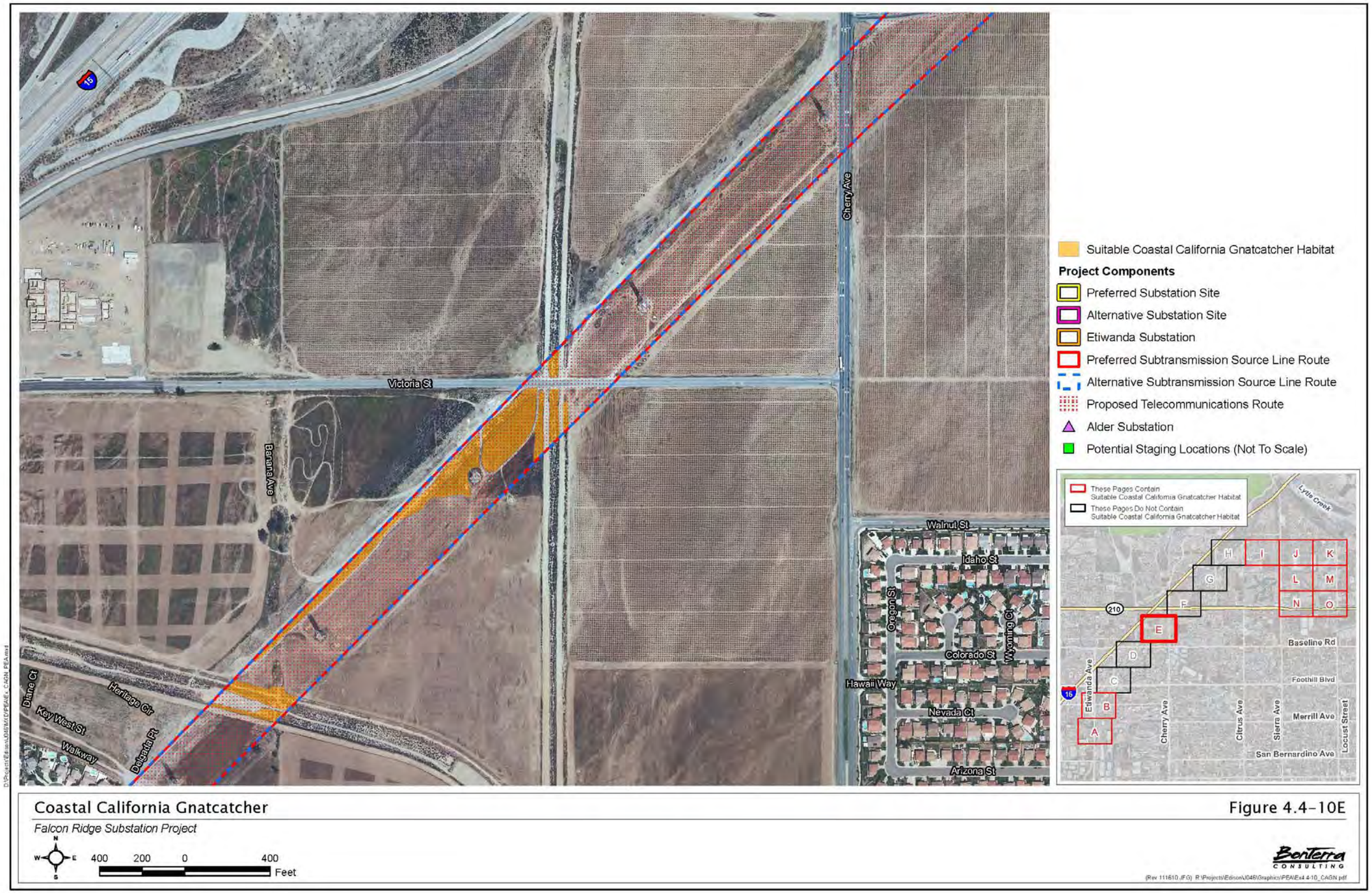


Coastal California Gnatcatcher

Figure 4.4-10B

Falcon Ridge Substation Project

(Rev 111610 JFG) R:\Projects\Edison\J048\Graphics\PEA\Ex4.4-10_CAGN.pdf



Coastal California Gnatcatcher

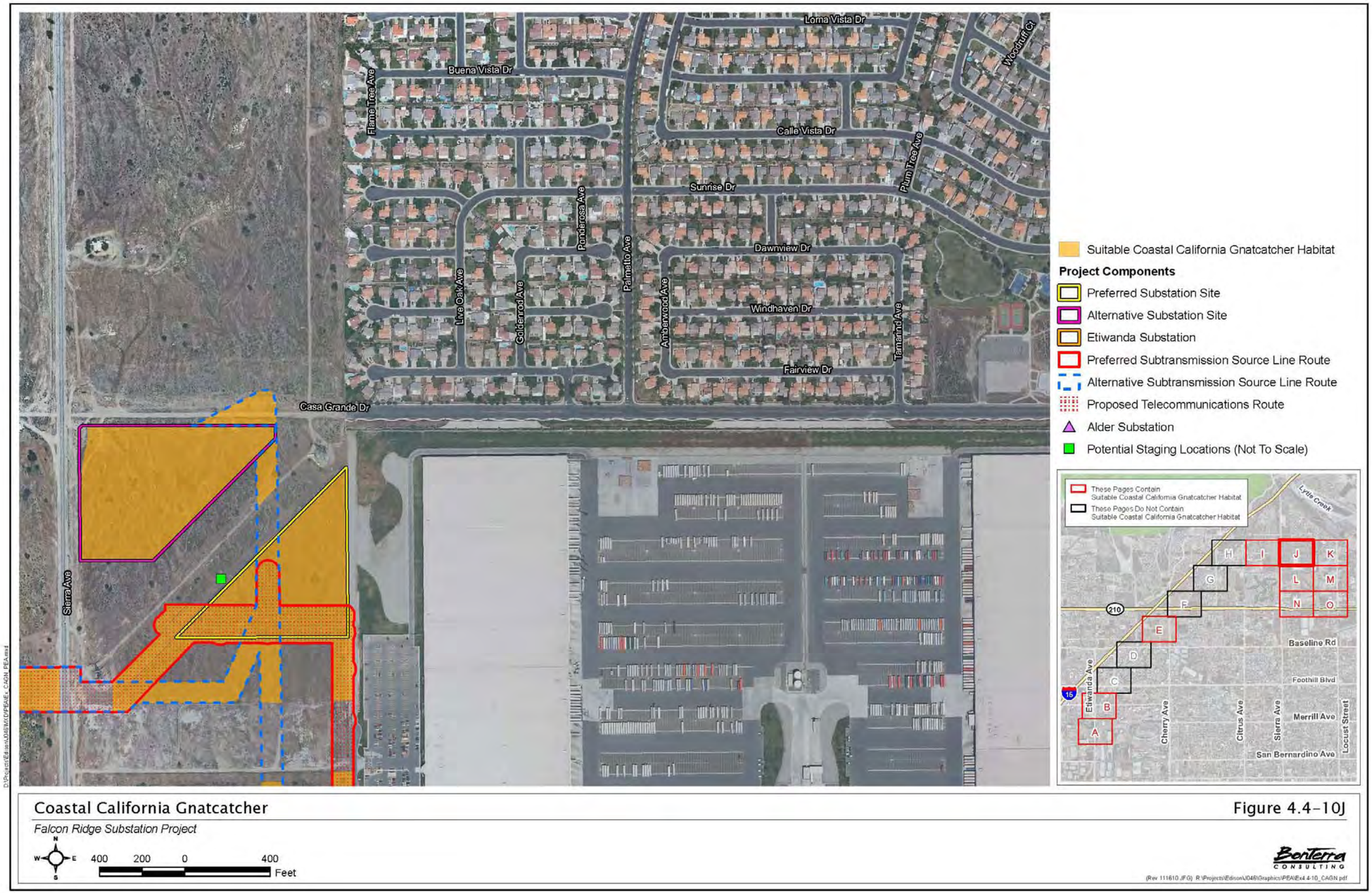
Figure 4.4-10E

Falcon Ridge Substation Project

Coastal California Gnatcatcher

Figure 4.4-10l

Falcon Ridge Substation Project



Coastal California Gnatcatcher

Figure 4.4-10J

Falcon Ridge Substation Project

(Rev 111610 JFG) R:\Projects\Edison\I046\Graphics\PEA\Ex4 4-10_CAGN.pdf

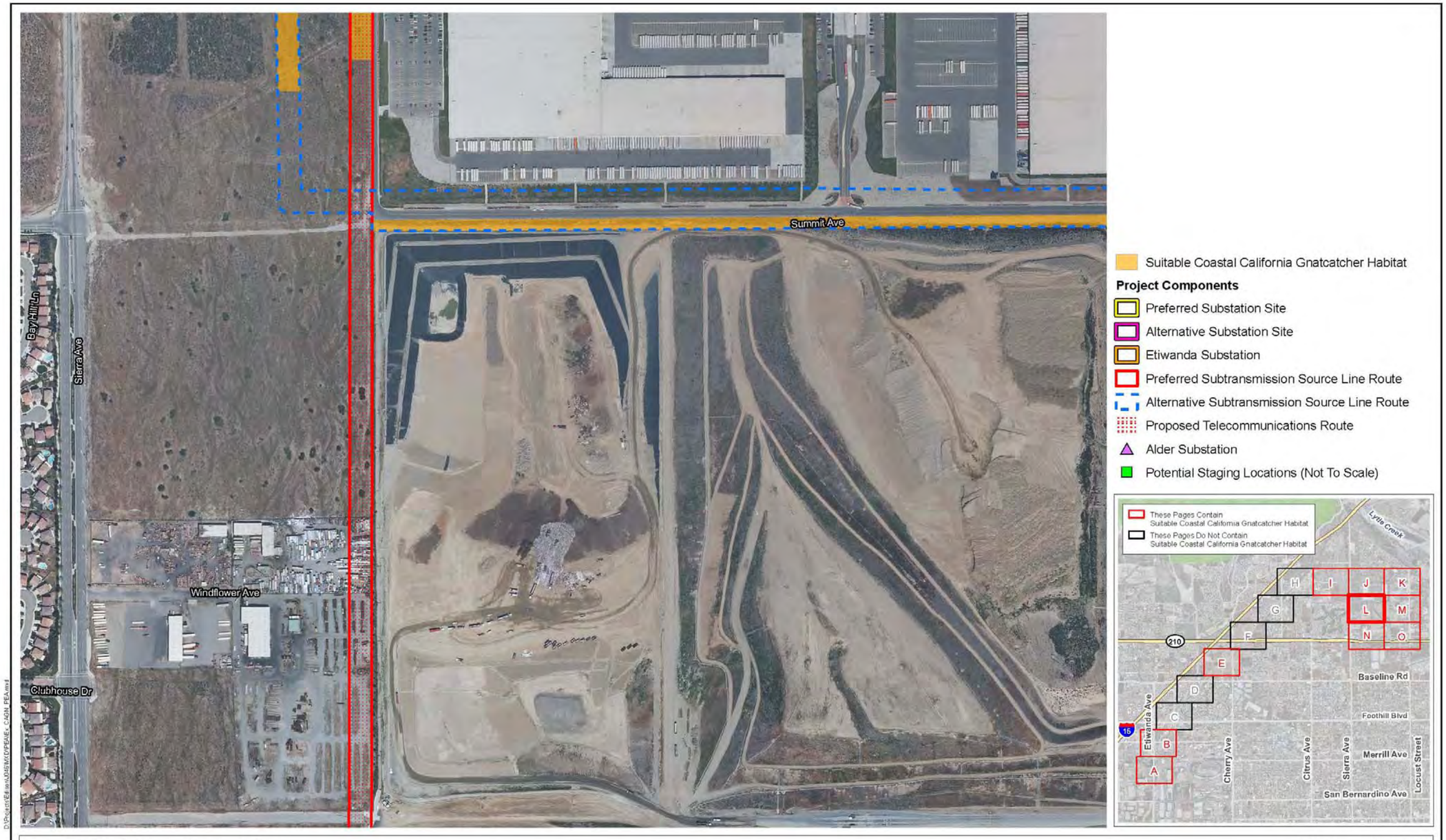
Coastal California Gnatcatcher

Figure 4.4-10K

Falcon Ridge Substation Project

Beriterra CONSULTING

(Rev 111610 JFG) R:\Projects\Edison\J048\Graphics\PEA\Ex4.4-10_CAGN.pdf



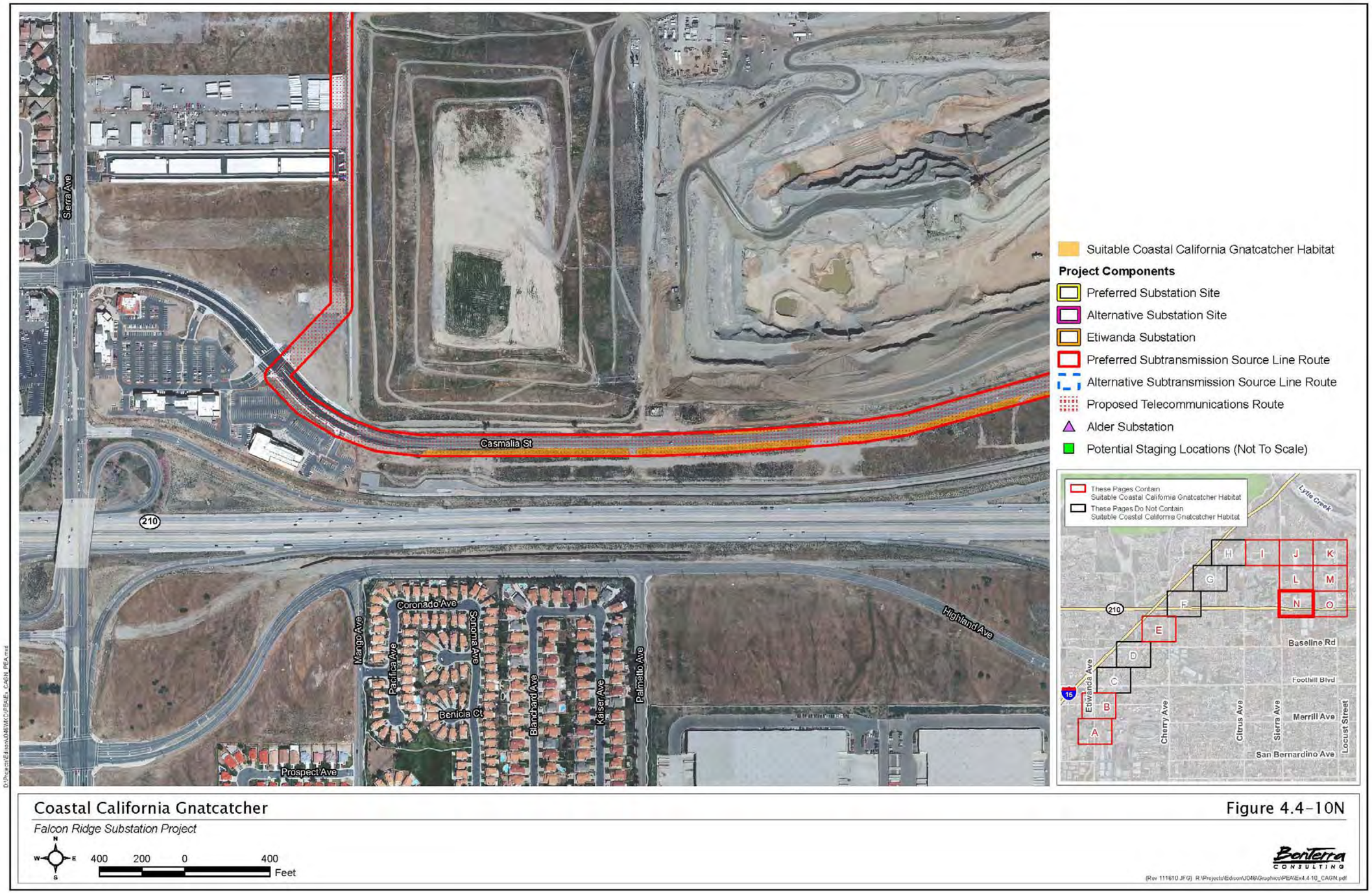
Coastal California Gnatcatcher

Figure 4.4-10L

Falcon Ridge Substation Project

(Rev 111610 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-10_CAGN.pdf


Lowell St
Carpenter St
Summit St
Summit Ave
Persimmon St
Buxton St
Fitzsimmons Ave
Maple Ave
Banyon St
Locust Ave
Stonehurst Dr
Alder Ave
Laurel Ave
Bohnert Ave
Suitable Coastal California Gnatcatcher Habitat
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
These Pages Contain Suitable Coastal California Gnatcatcher Habitat
These Pages Do Not Contain Suitable Coastal California Gnatcatcher Habitat
Lytle Creek
210
15
Baseline Rd
Foothill Blvd
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Merrill Ave
Locust Street
San Bernardino Ave
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
D:\Projects\Edison\J046\MXD\PEA\Ex-CAGN_PEA.mxd
Coastal California Gnatcatcher
Falcon Ridge Substation Project
N
W
E
S
400 200 0 400
Feet
(Rev 111610.JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-10_CAGN.pdf



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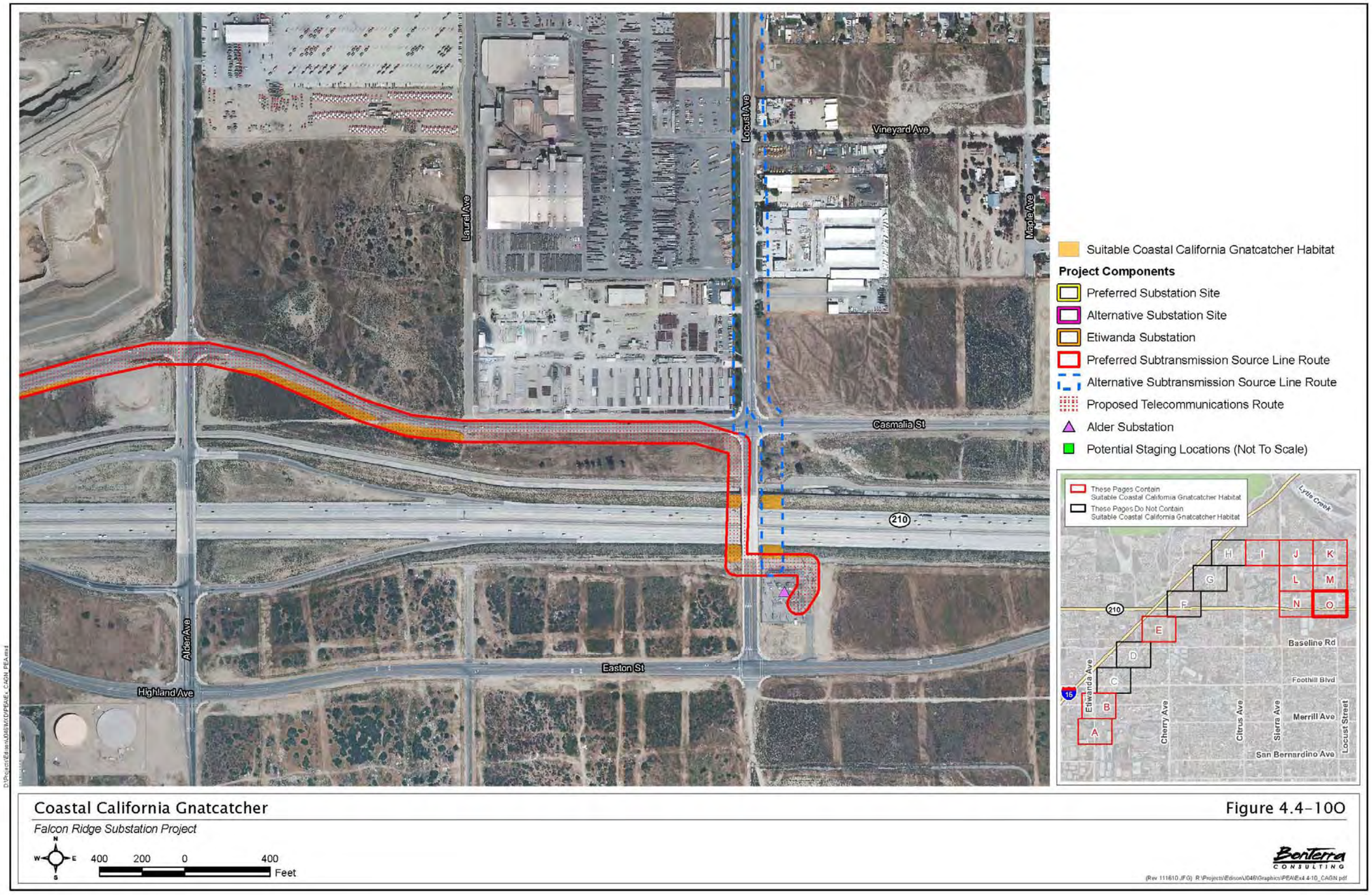
Coastal California Gnatcatcher

Falcon Ridge Substation Project

Figure 4.4-10N

(Rev 111610 JFG) R:\Projects\Edison\J046\Graphics\PEA\Ex4.4-10_CAGN.pdf


Laurel Ave
Locust Ave
Vineyard Ave
Maple Ave
Casmalia St
Alder Ave
Easton St
Highland Ave
210
Suitable Coastal California Gnatcatcher Habitat
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Preferred Subtransmission Source Line Route
Alternative Subtransmission Source Line Route
Proposed Telecommunications Route
Alder Substation
Potential Staging Locations (Not To Scale)
These Pages Contain Suitable Coastal California Gnatcatcher Habitat
These Pages Do Not Contain Suitable Coastal California Gnatcatcher Habitat
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
15
210
Coastal California Gnatcatcher
Falcon Ridge Substation Project
Figure 4.4-10O
N
W
E
S
400 200 0 400
Feet
Bonterra CONSULTING
(Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\Ex4.4-10_CAGN.pdf
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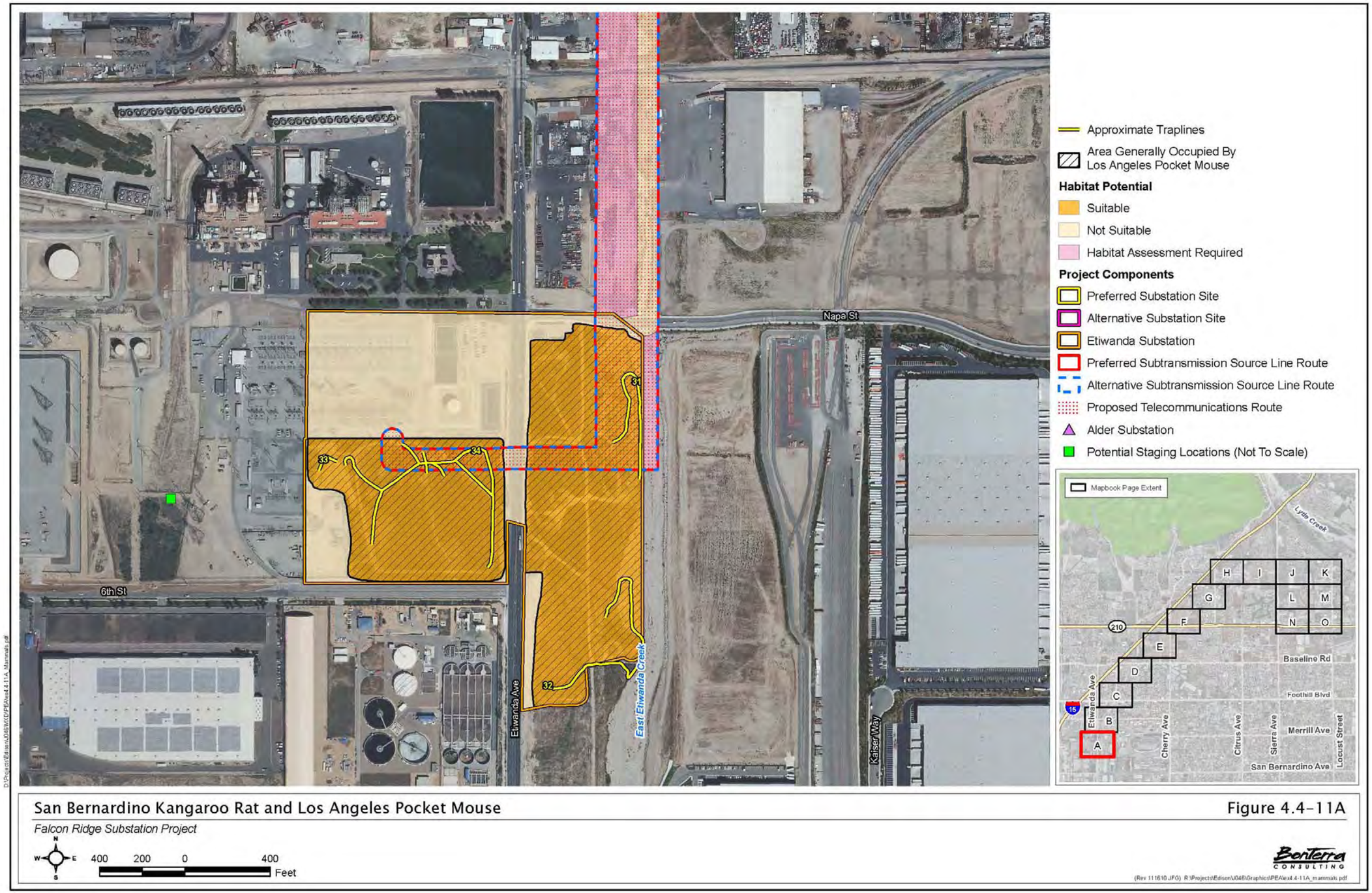
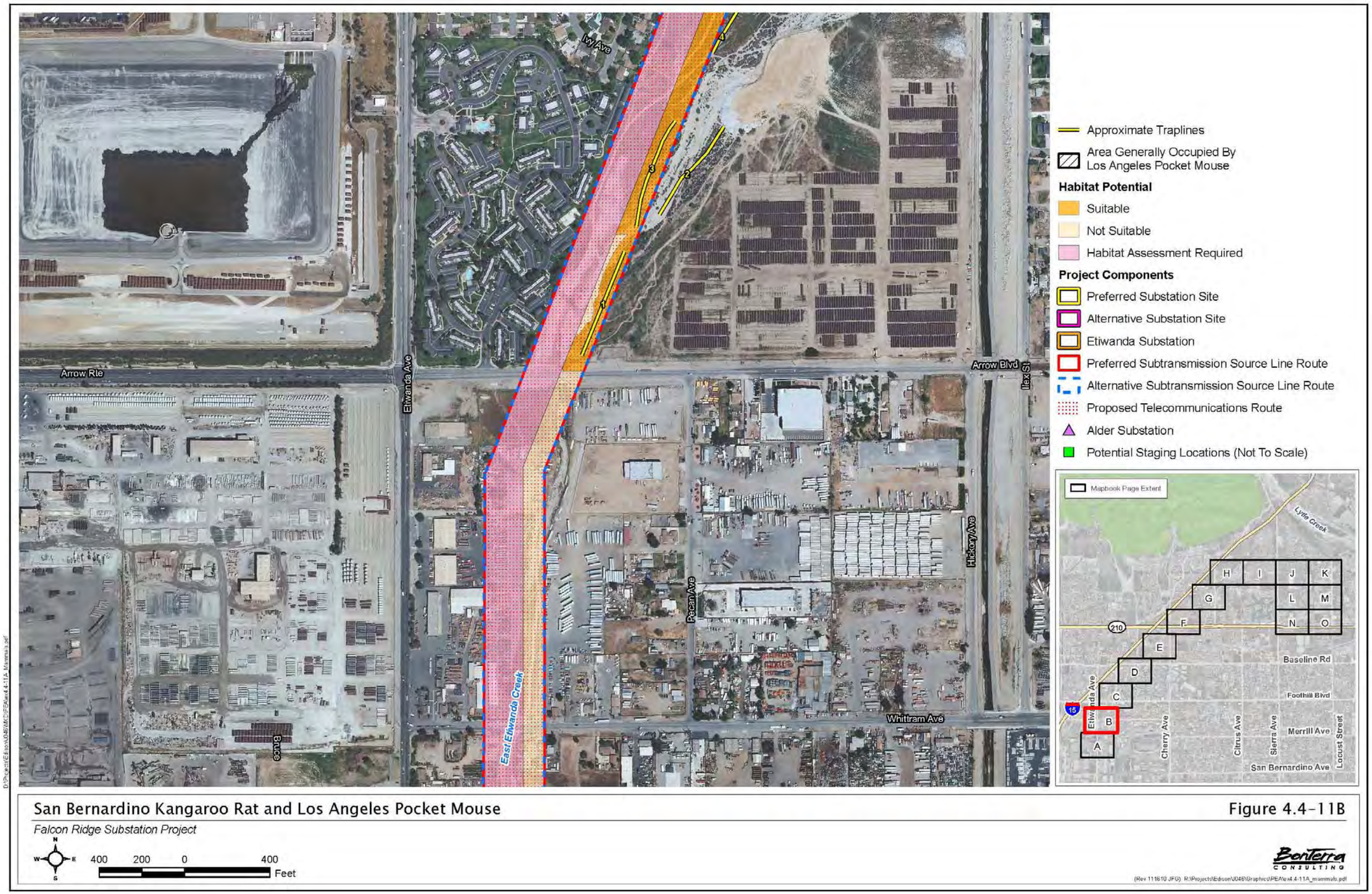


San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse — Figure 4.4-11A

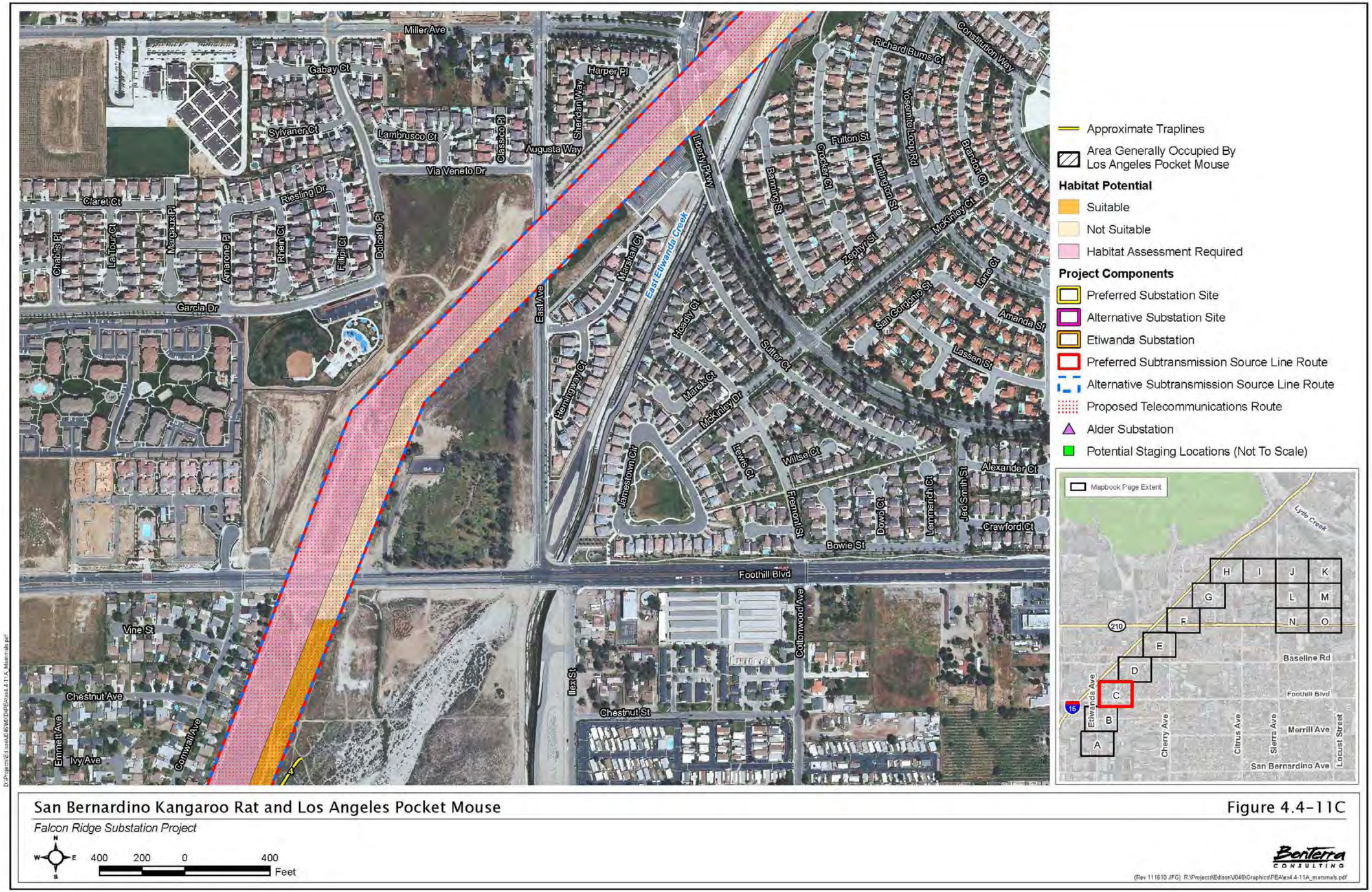
Falcon Ridge Substation Project



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11B

Falcon Ridge Substation Project

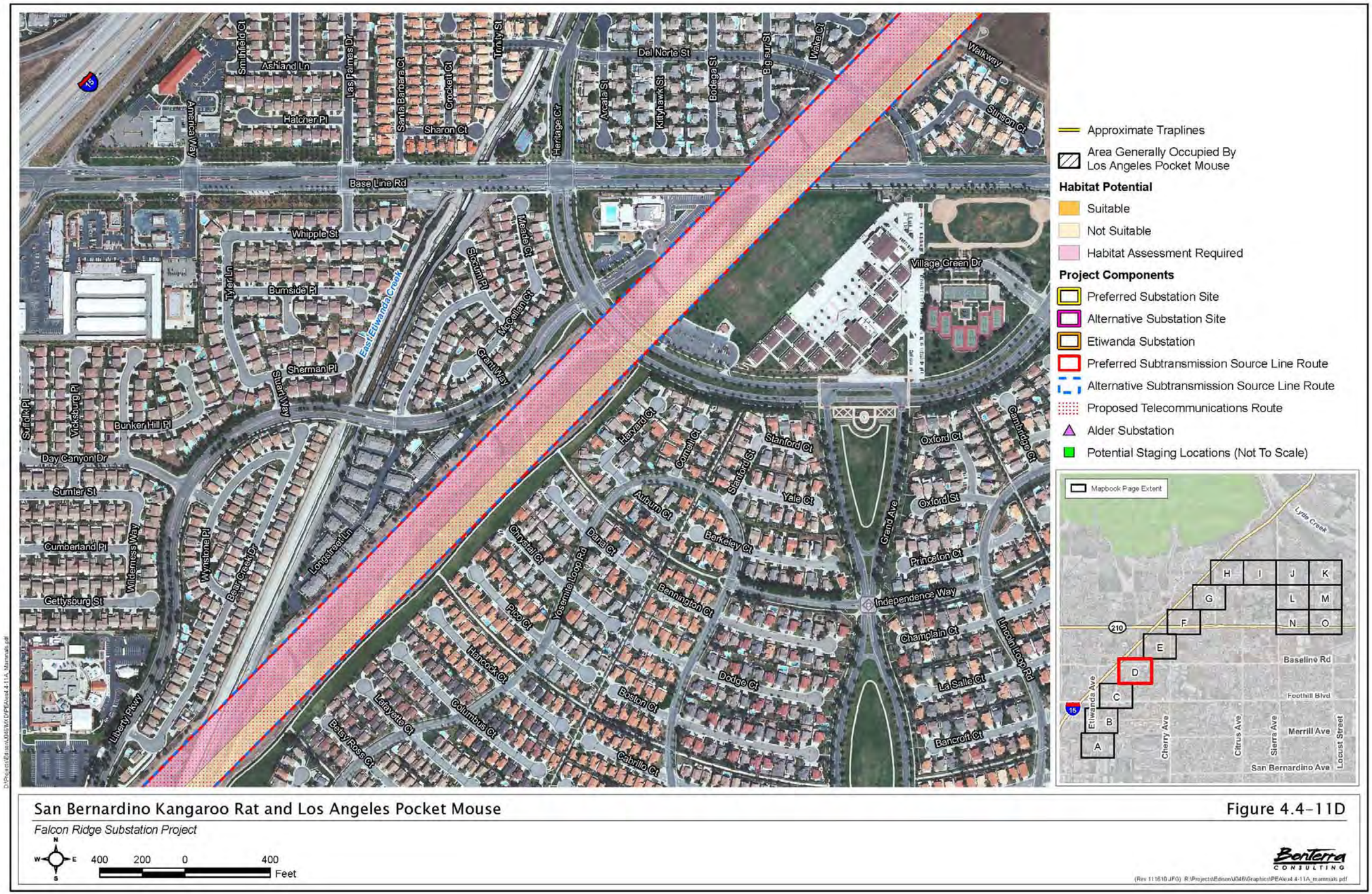


San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Falcon Ridge Substation Project

Figure 4.4-11C

(Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\ex4.4-11A_mammals.pdf



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

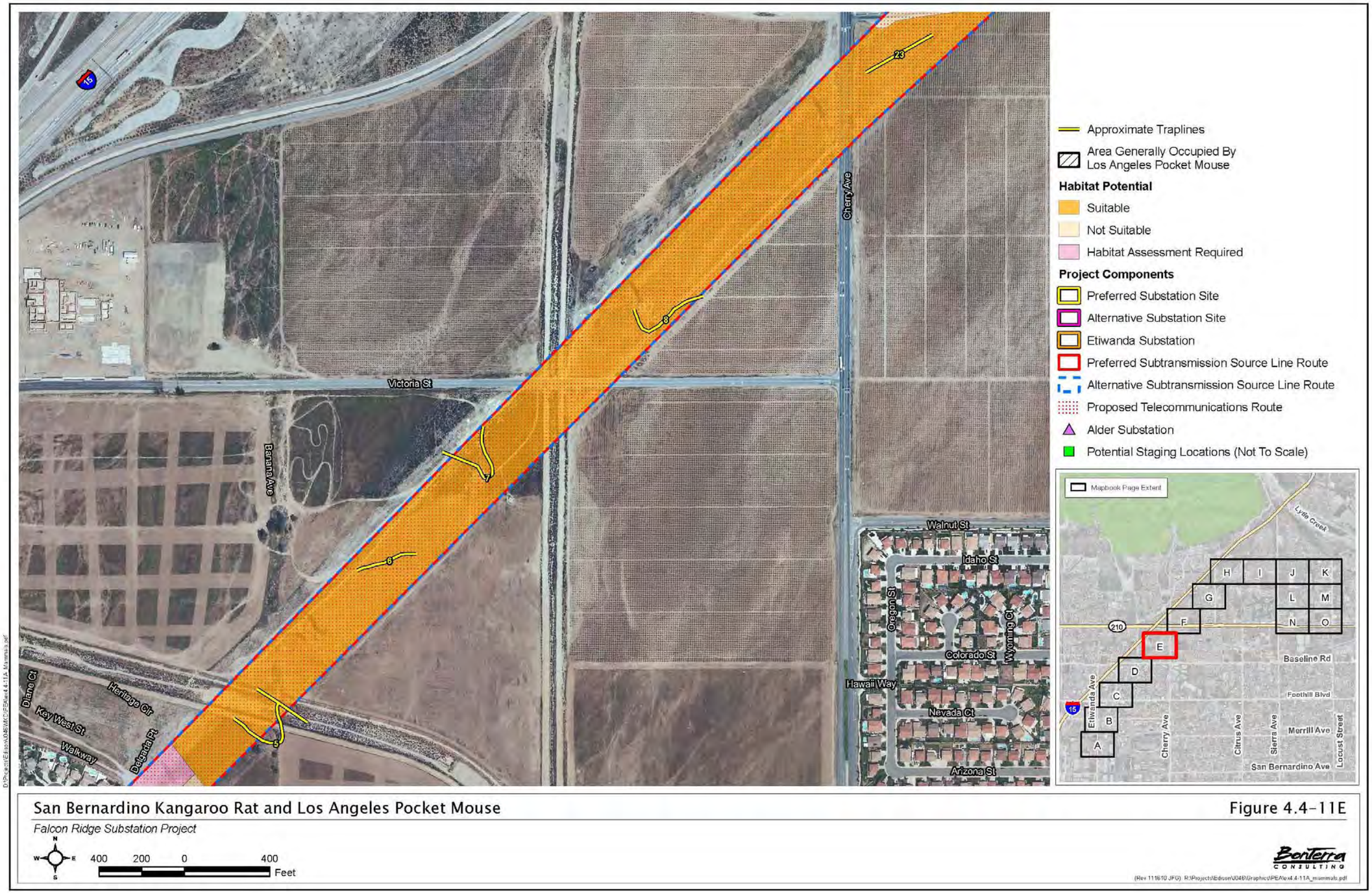
Figure 4.4-11D

Falcon Ridge Substation Project

400 200 0 400 Feet

BonTerra CONSULTING

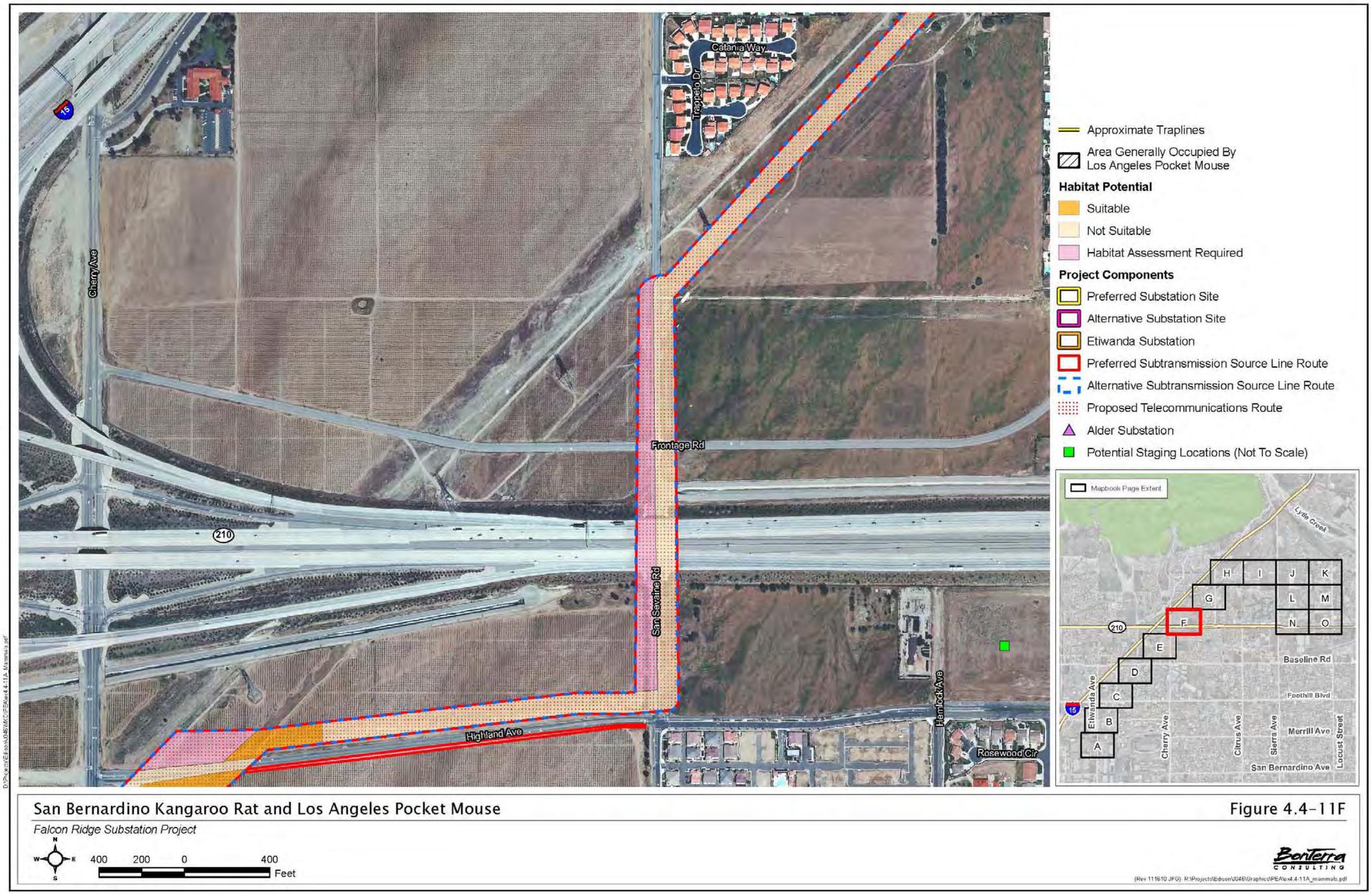
(Rev 111610 JFG) R:\Projects\Edison\046\Graphics\PEA\ea4 4-11A_mammals.pdf



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11E

Falcon Ridge Substation Project



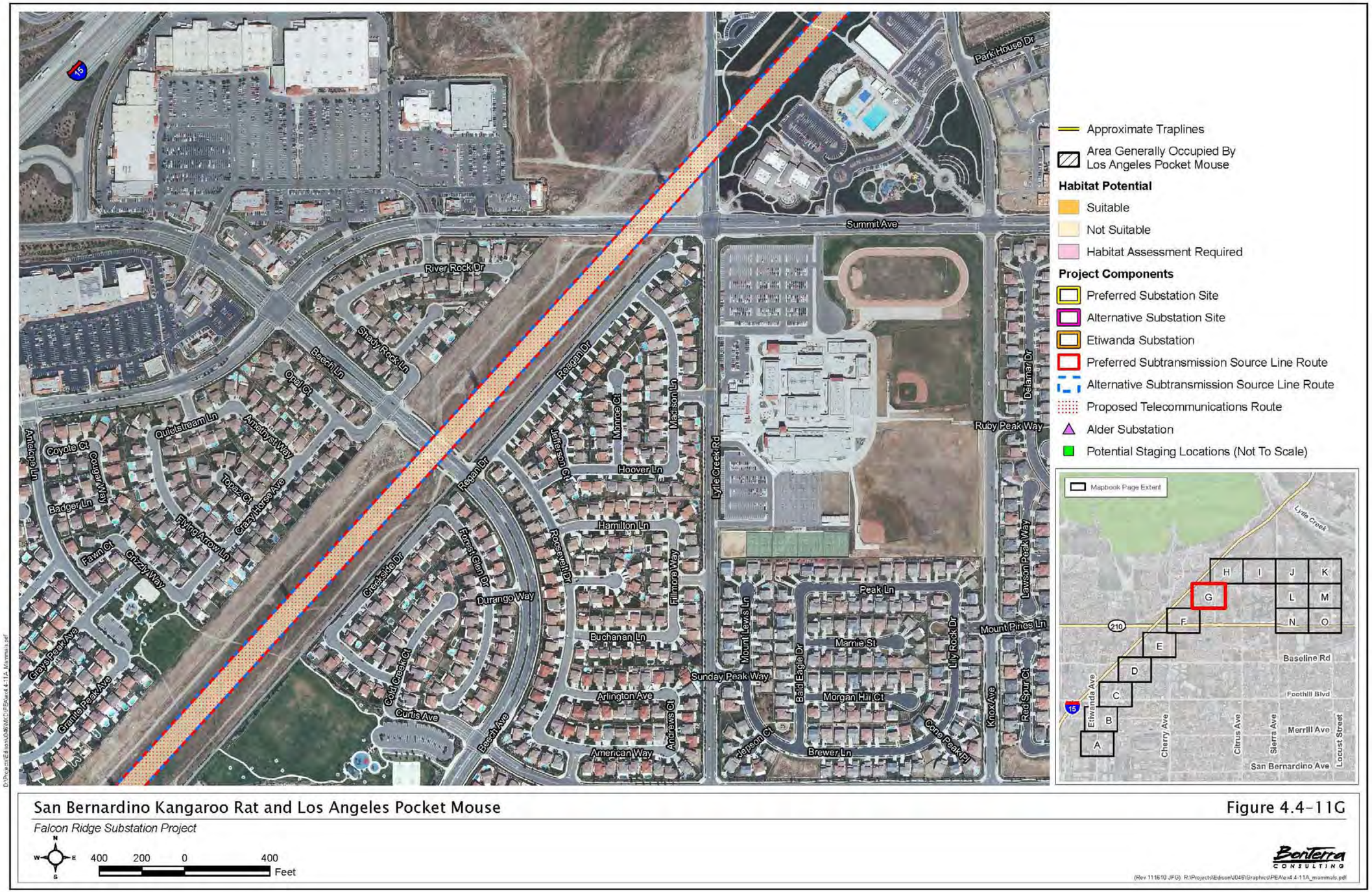
San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11F

Falcon Ridge Substation Project

BonTerra CONSULTING

(Rev 111610 JFG) R:\Projects\Edison\0046\Graphics\PEA\ex4.4-11A_mammals.pdf

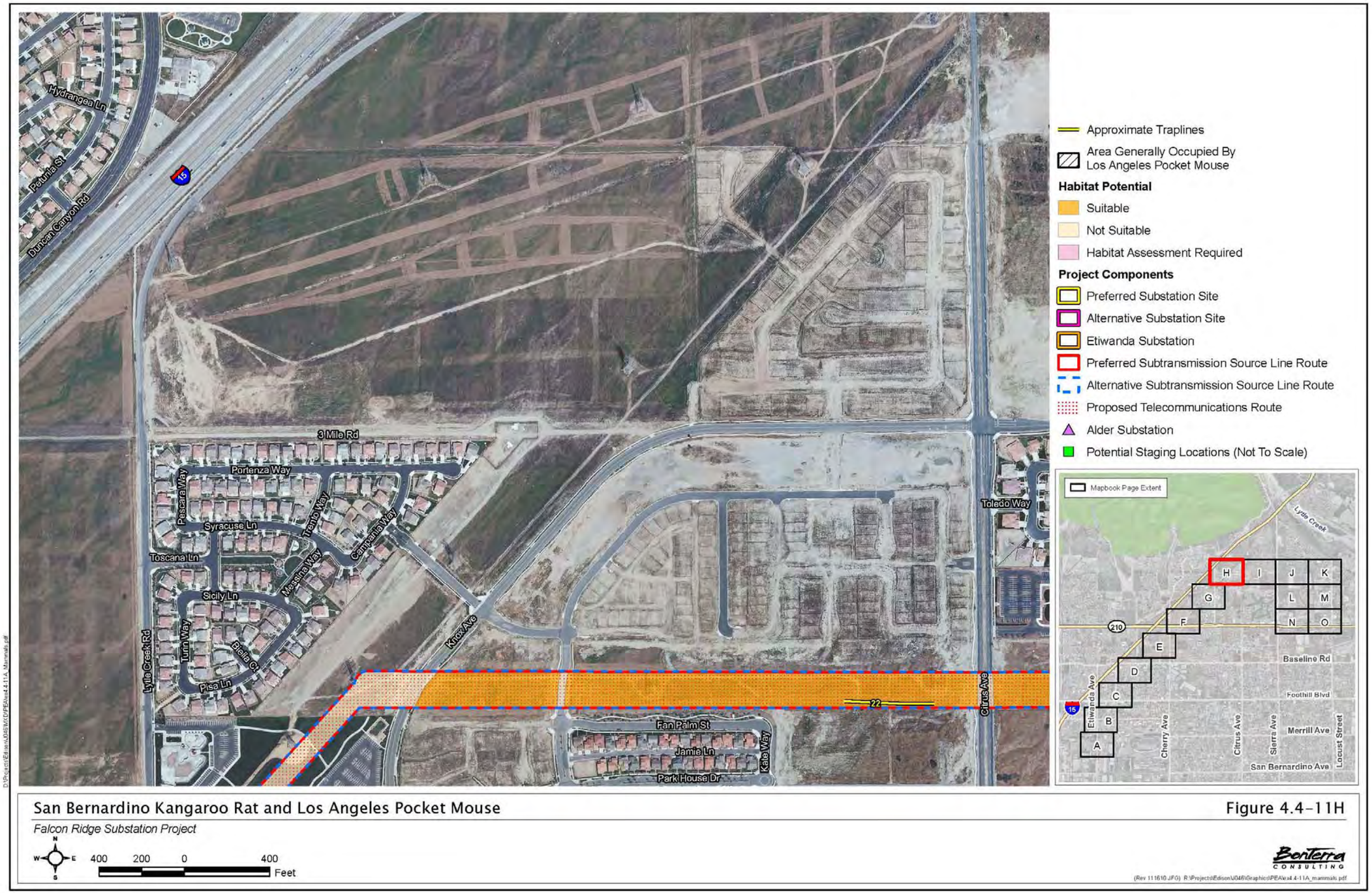


San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11G

Falcon Ridge Substation Project

400 200 0 400 Feet



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11H

Falcon Ridge Substation Project

BonTerra CONSULTING

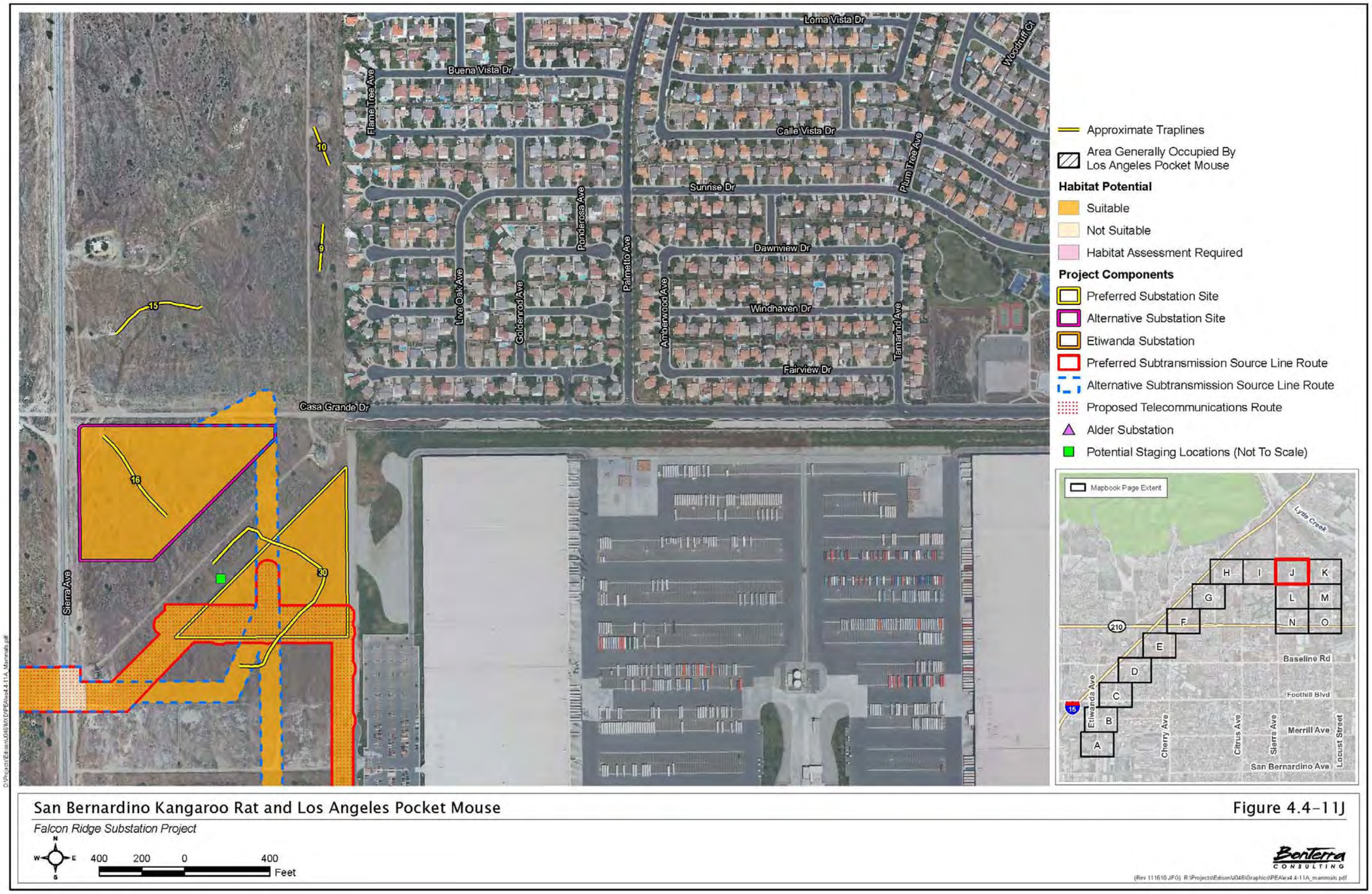
(Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\ea4.4-11A_mammals.pdf

San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11l

Falcon Ridge Substation Project

(Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\es\4.4-11A_mammals.pdf



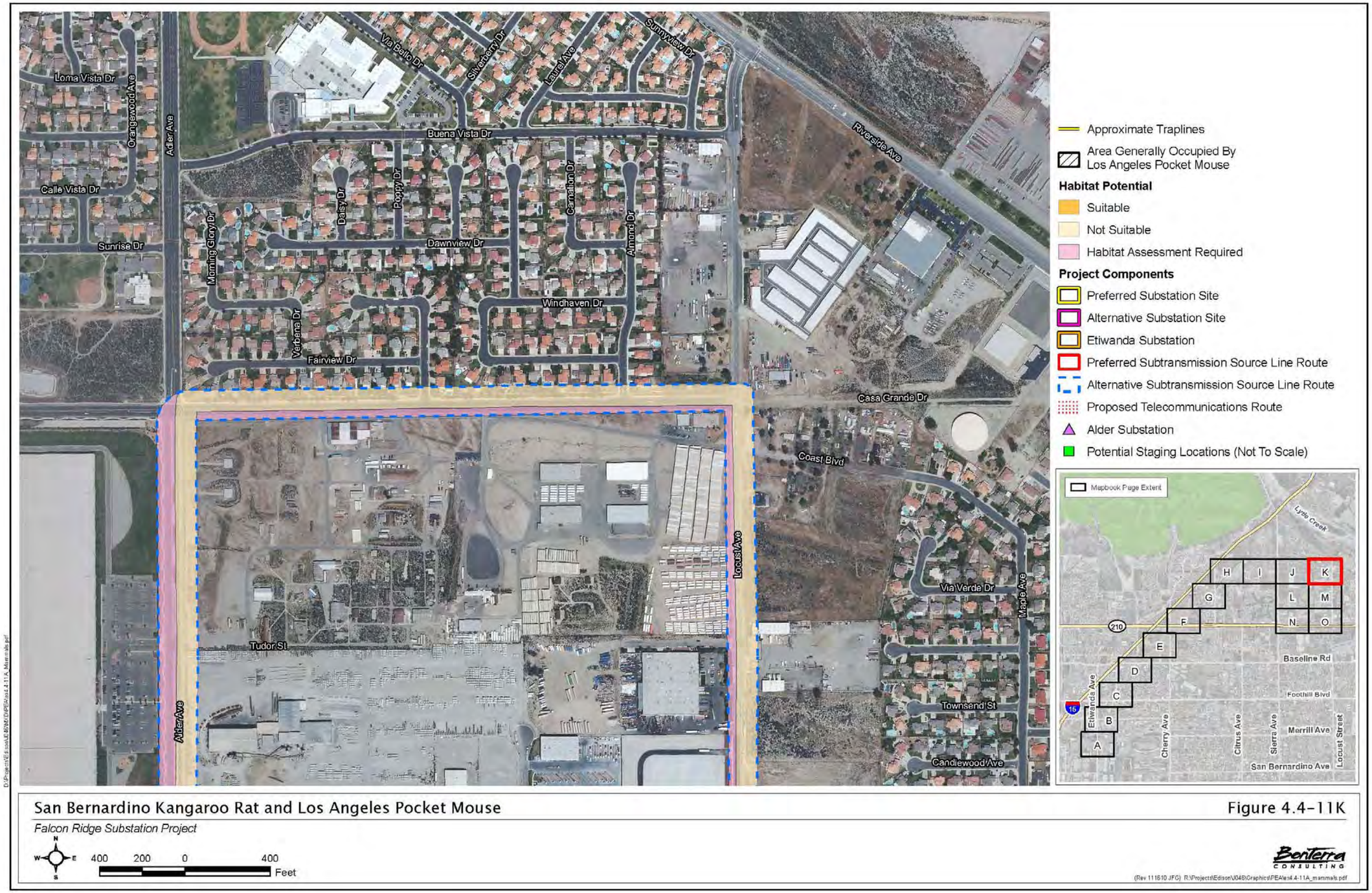
San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11J

Falcon Ridge Substation Project

BonTerra CONSULTING

(Rev 111610.JPG) R:\Projects\Edison\U046\Graphics\PEA\ex4.4-11A_mammals.pdf



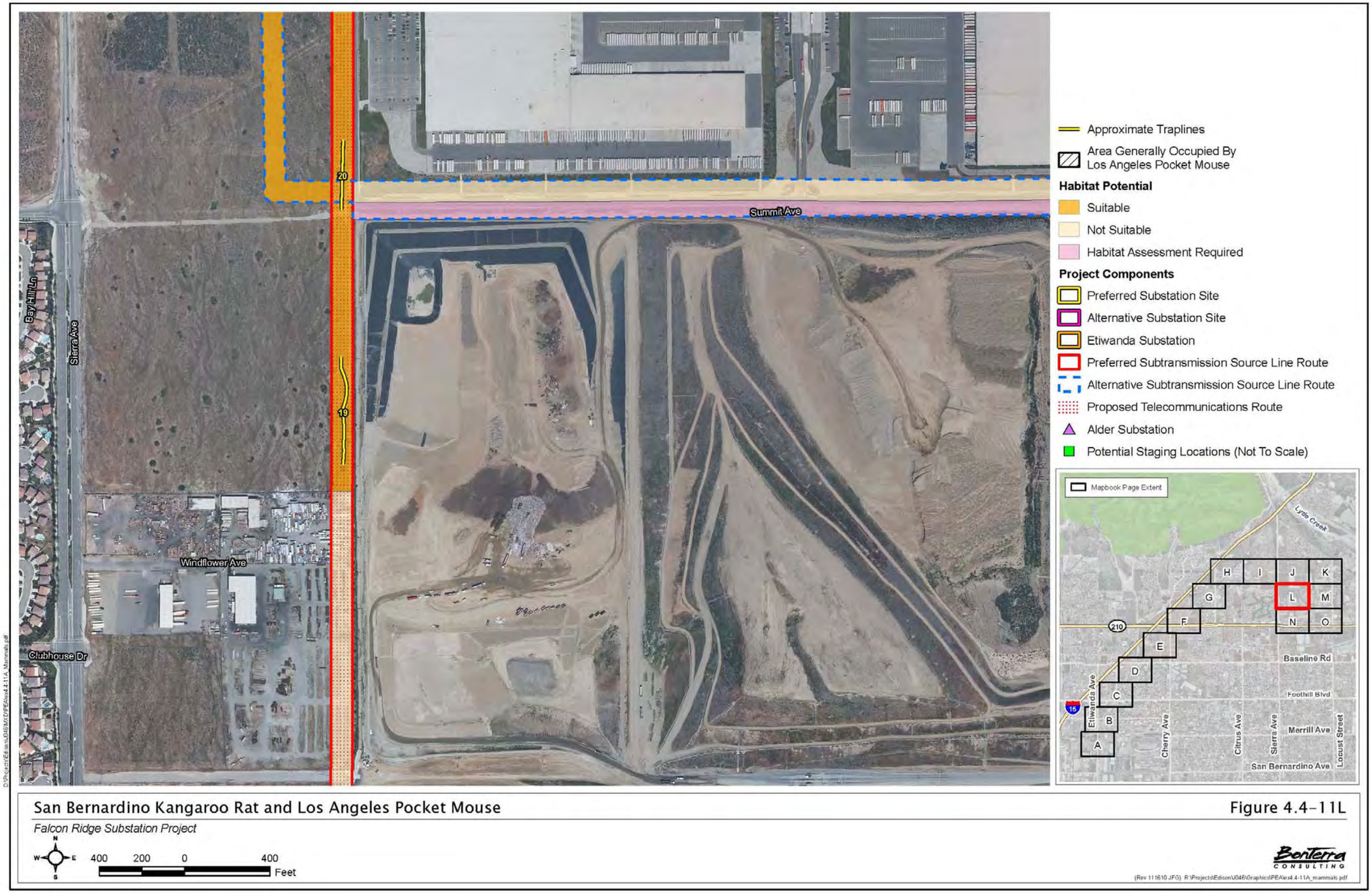
San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Falcon Ridge Substation Project

Figure 4.4-11K

BonTerra CONSULTING

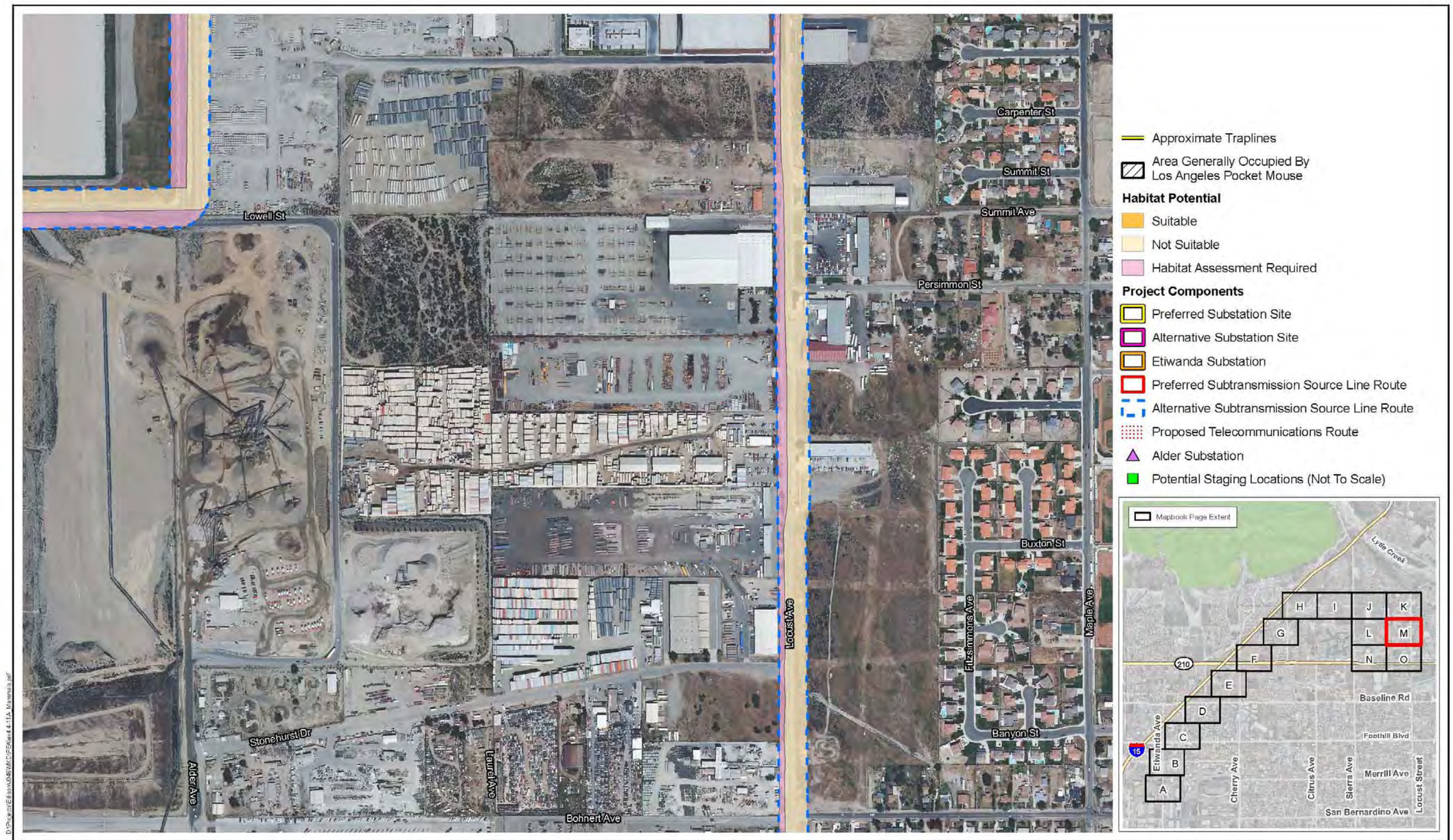
(Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\es\4.4-11A_mammals.pdf



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11L

Falcon Ridge Substation Project



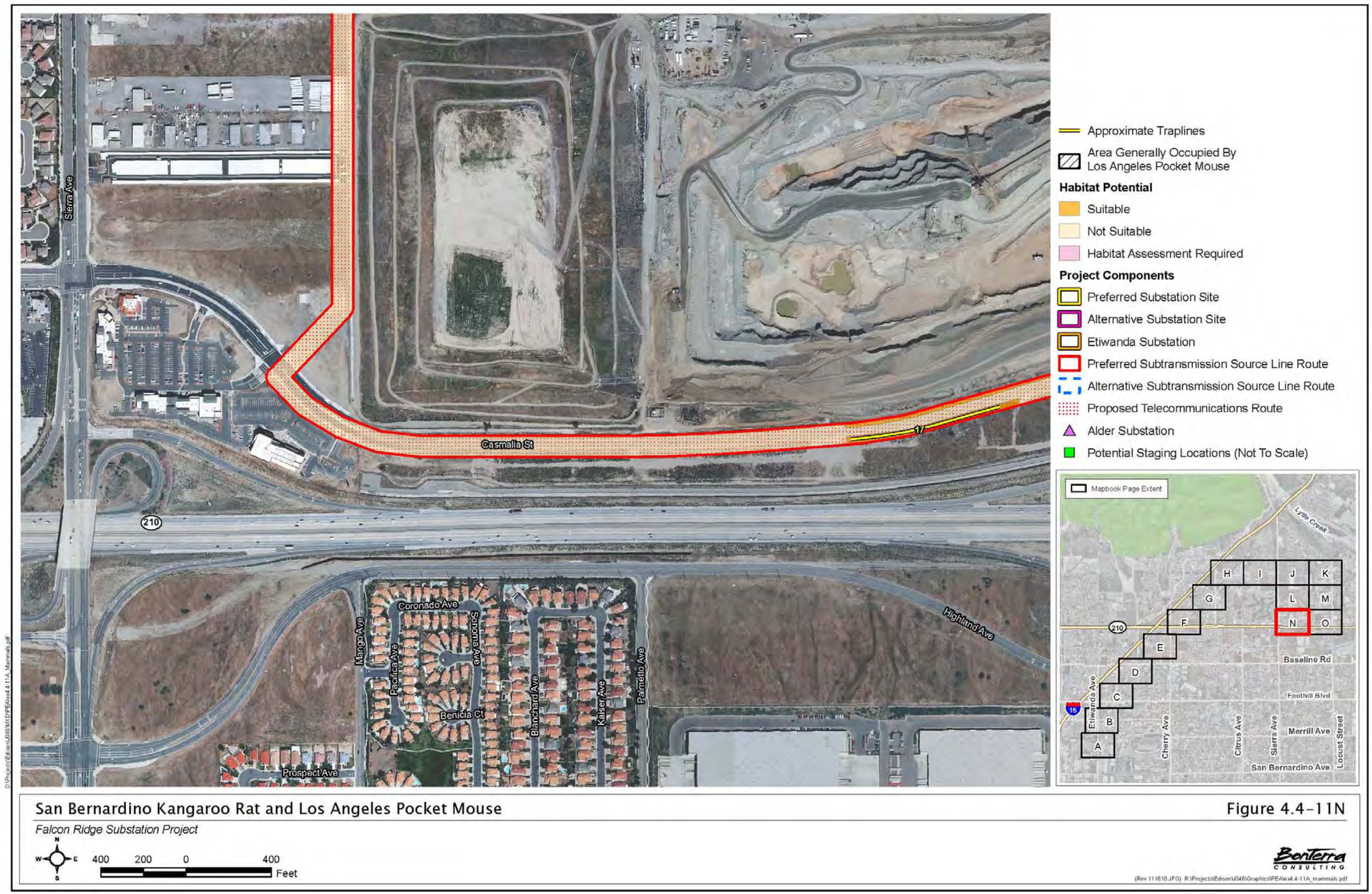
San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11M

Falcon Ridge Substation Project

(Rev 111610 JFG) R:\Projects\Edison\U046\Graphics\PEA\ex4.4-11A_mammals.pdf

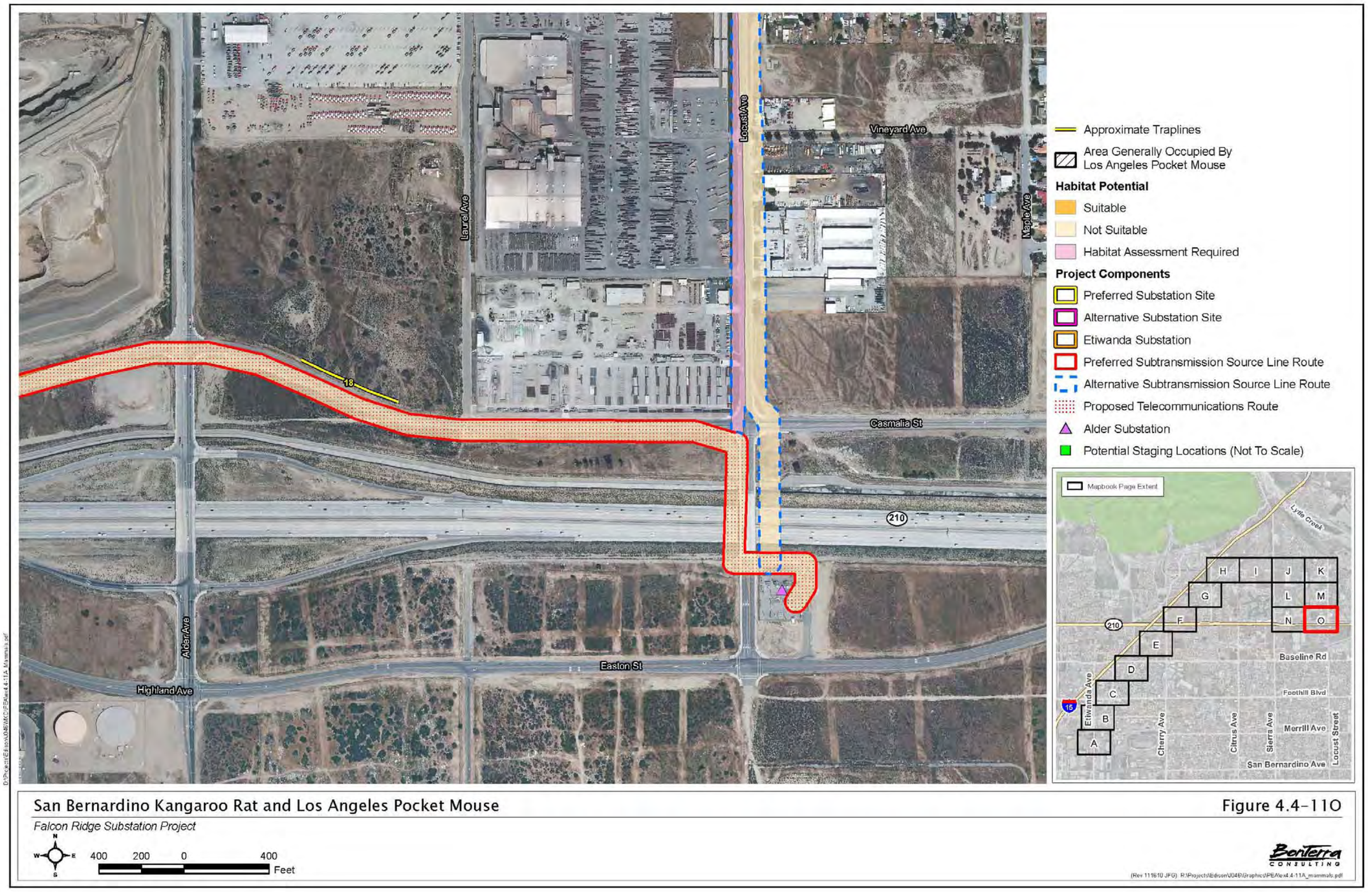
D:\Projects\Edison\U046\MXD\PEA\ex4.4-11A_Mammals.pdf



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11N

Falcon Ridge Substation Project



San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-110

Falcon Ridge Substation Project

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(Rev 111610 JFG) R:\Projects\Edison\J046\Graphics\PEA\ex4.4-11A_mammals.pdf

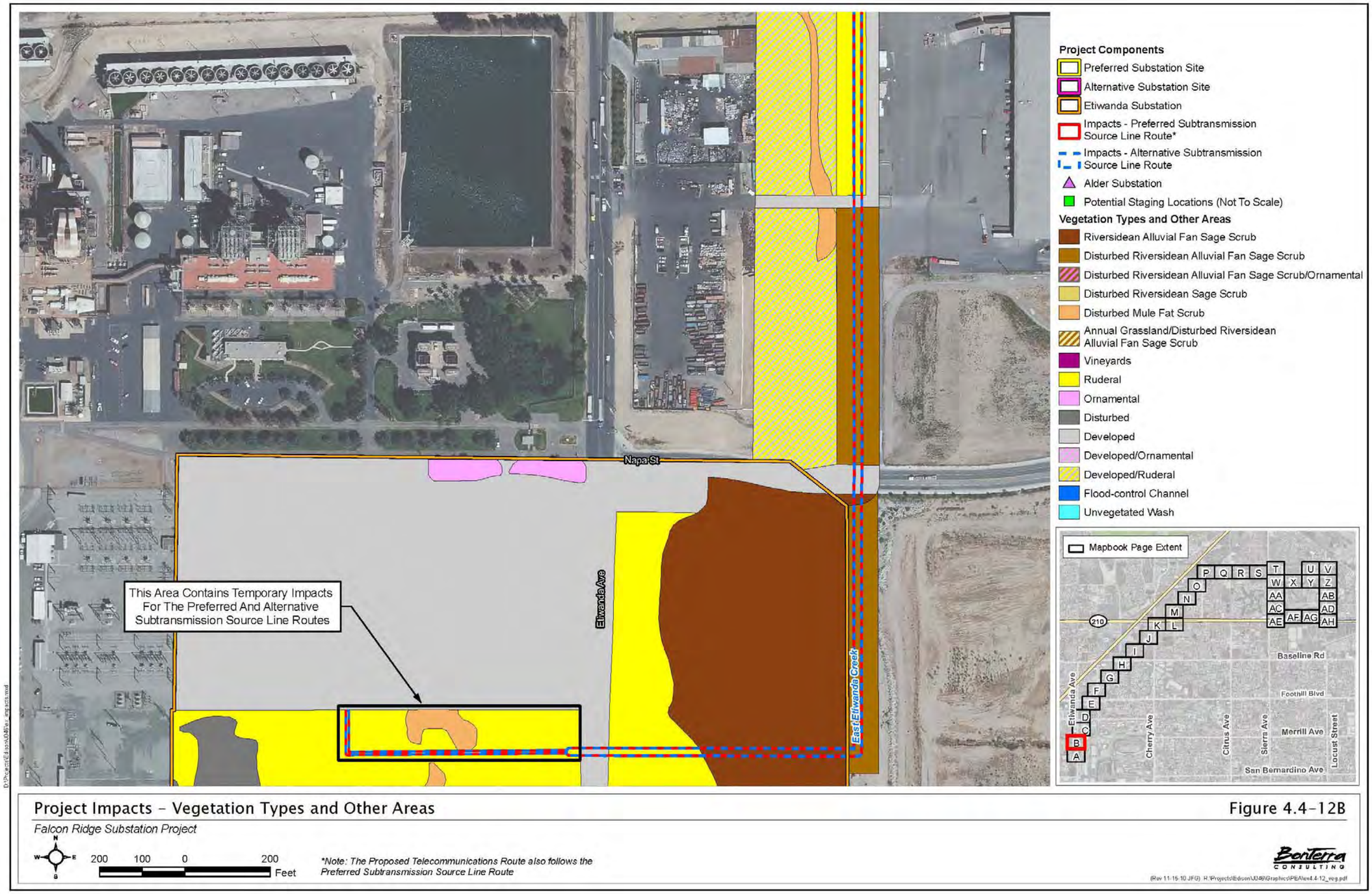
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12A

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\D46\Graphics\PEA\ex4.4-12_veg.pdf

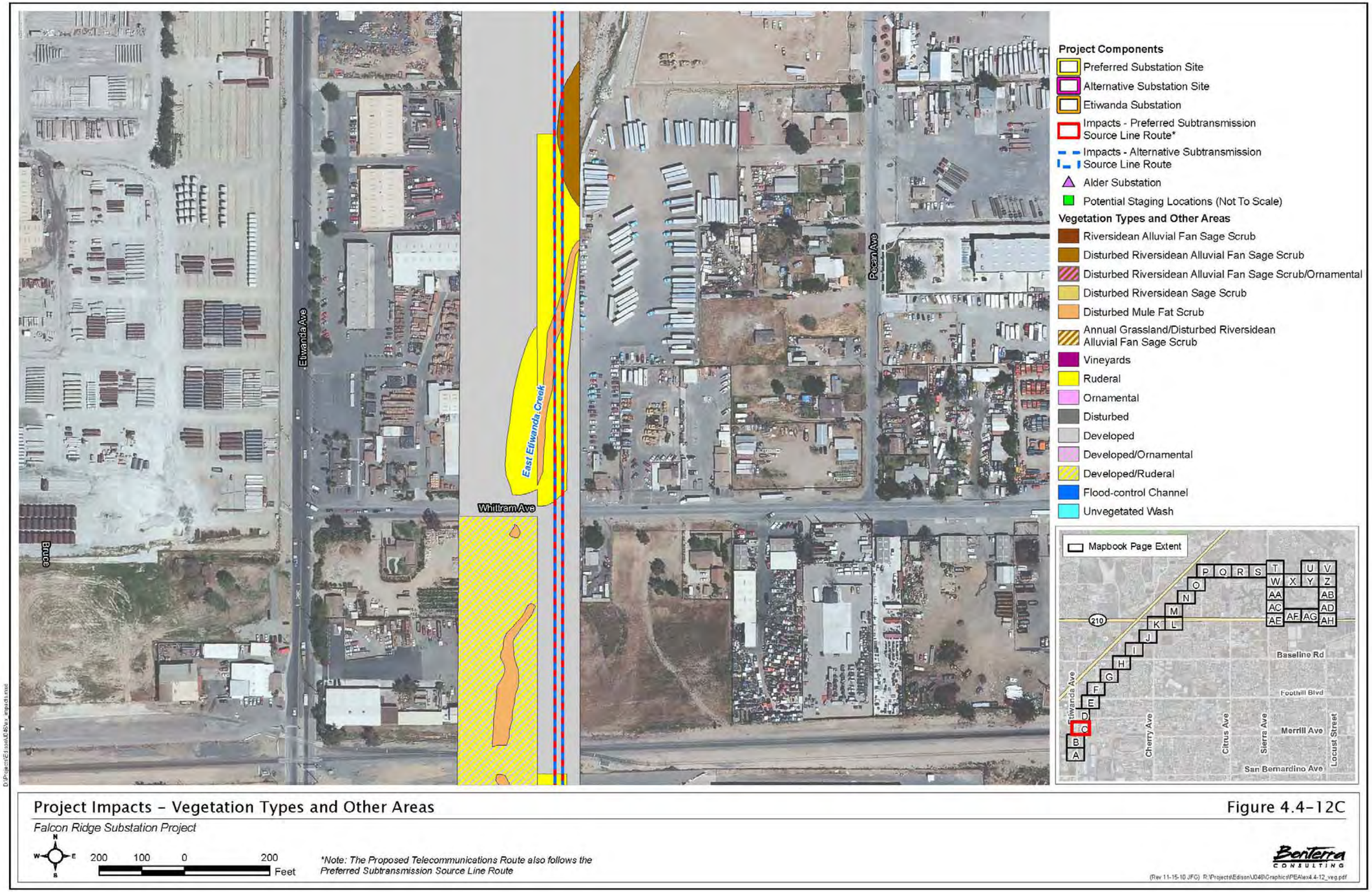


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12B

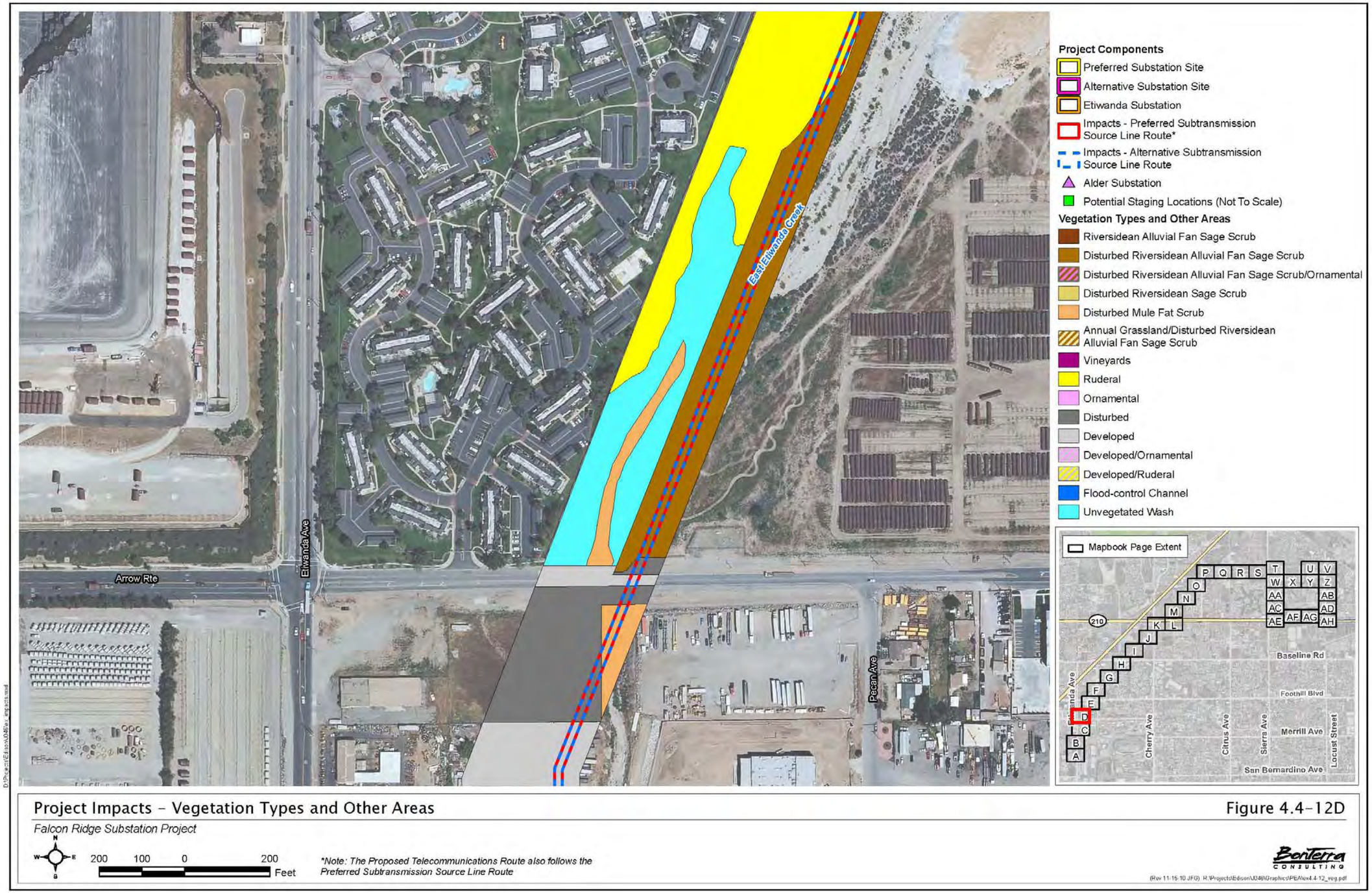
Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*



Project Impacts – Vegetation Types and Other Areas — Figure 4.4-12C

Falcon Ridge Substation Project

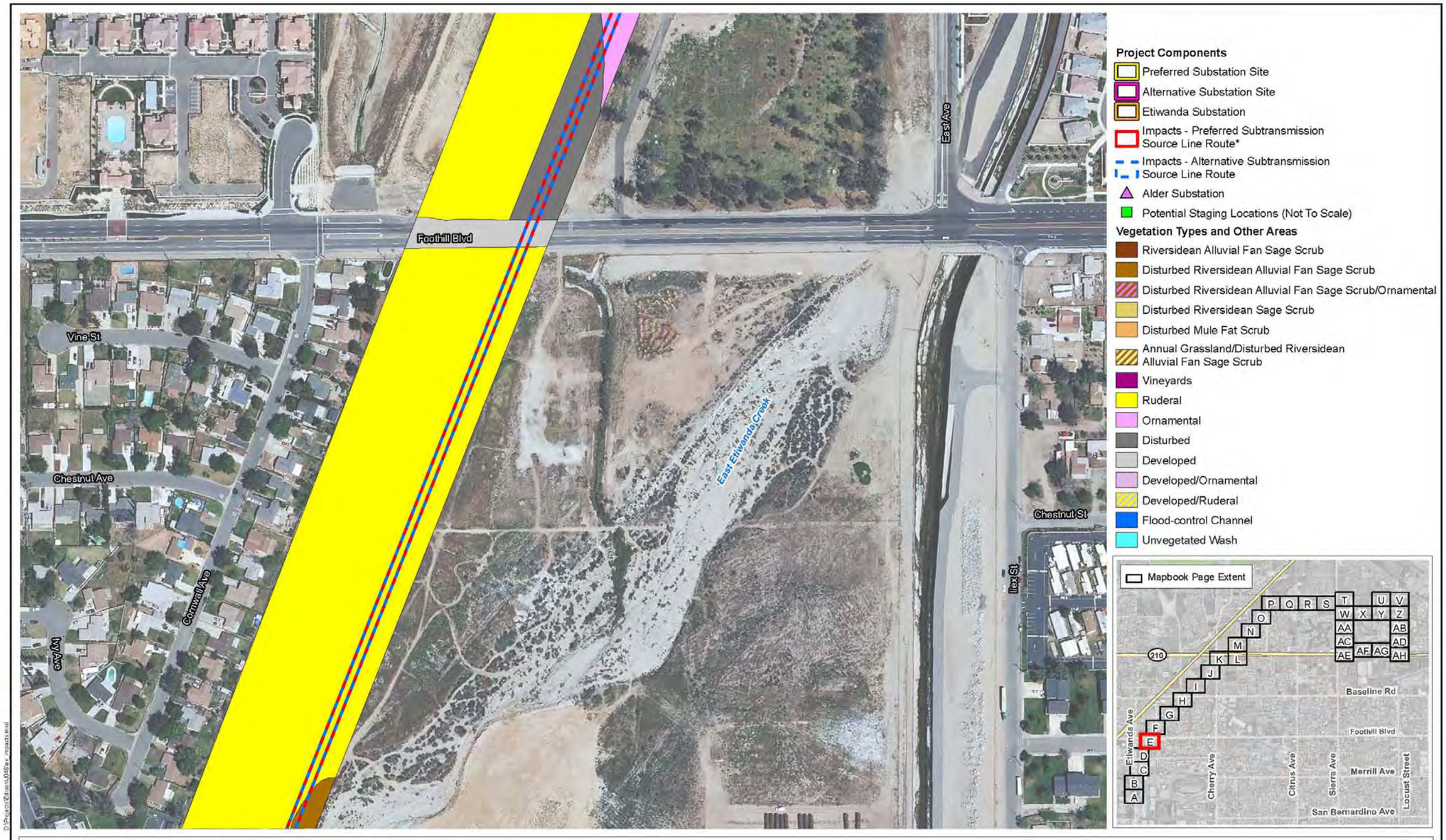


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12D

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

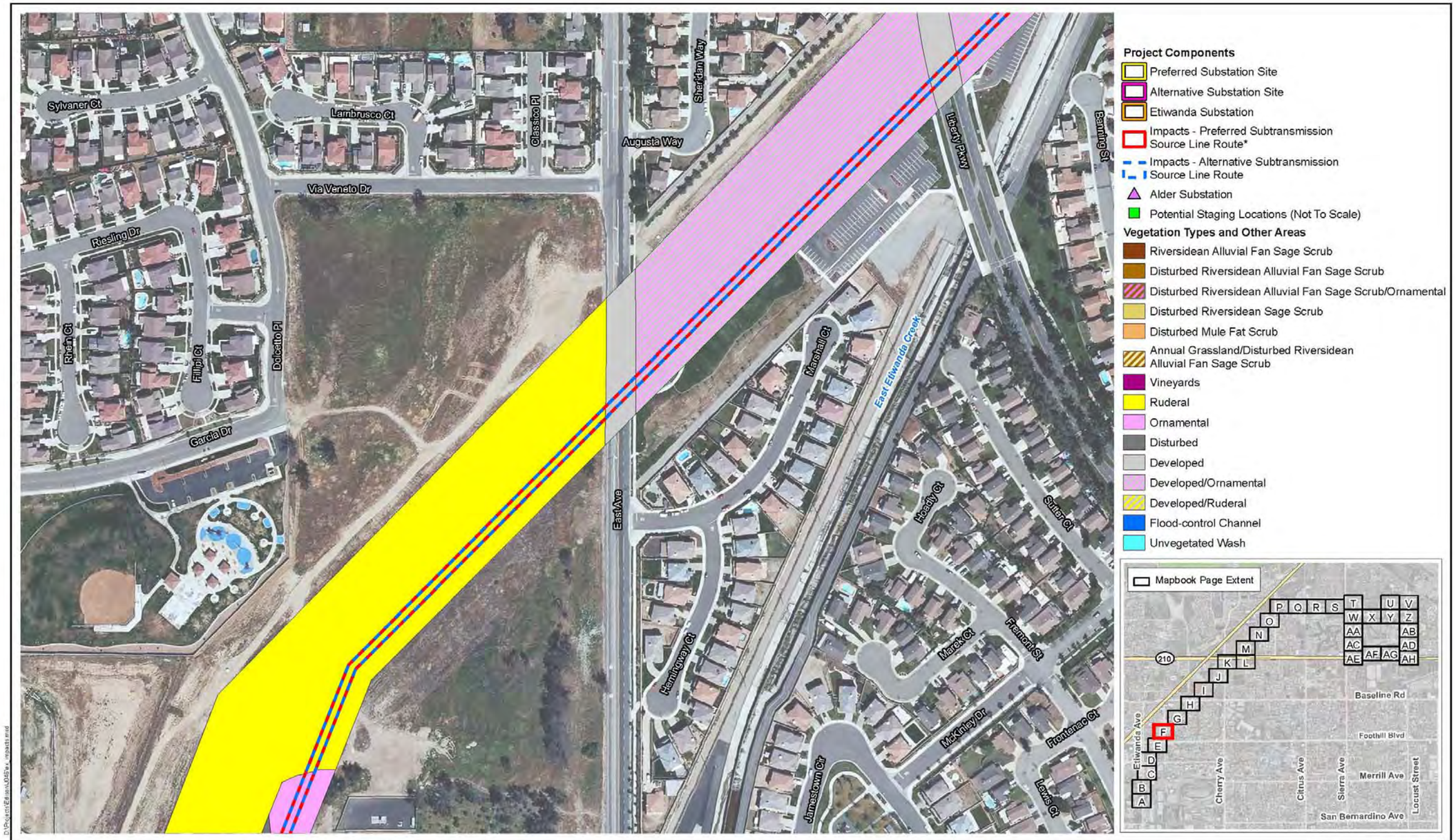


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12E

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*



Project Impacts – Vegetation Types and Other Areas — Figure 4.4-12F

Falcon Ridge Substation Project

200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\D046\Graphics\PEA\es4.4-12_veg.pdf

San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse

Figure 4.4-11G

Falcon Ridge Substation Project

400 200 0 400 Feet

(Rev 111610 JFG) R:\Projects\Edison\J046\Graphics\PEA\es\4.4-11A_mammals.pdf

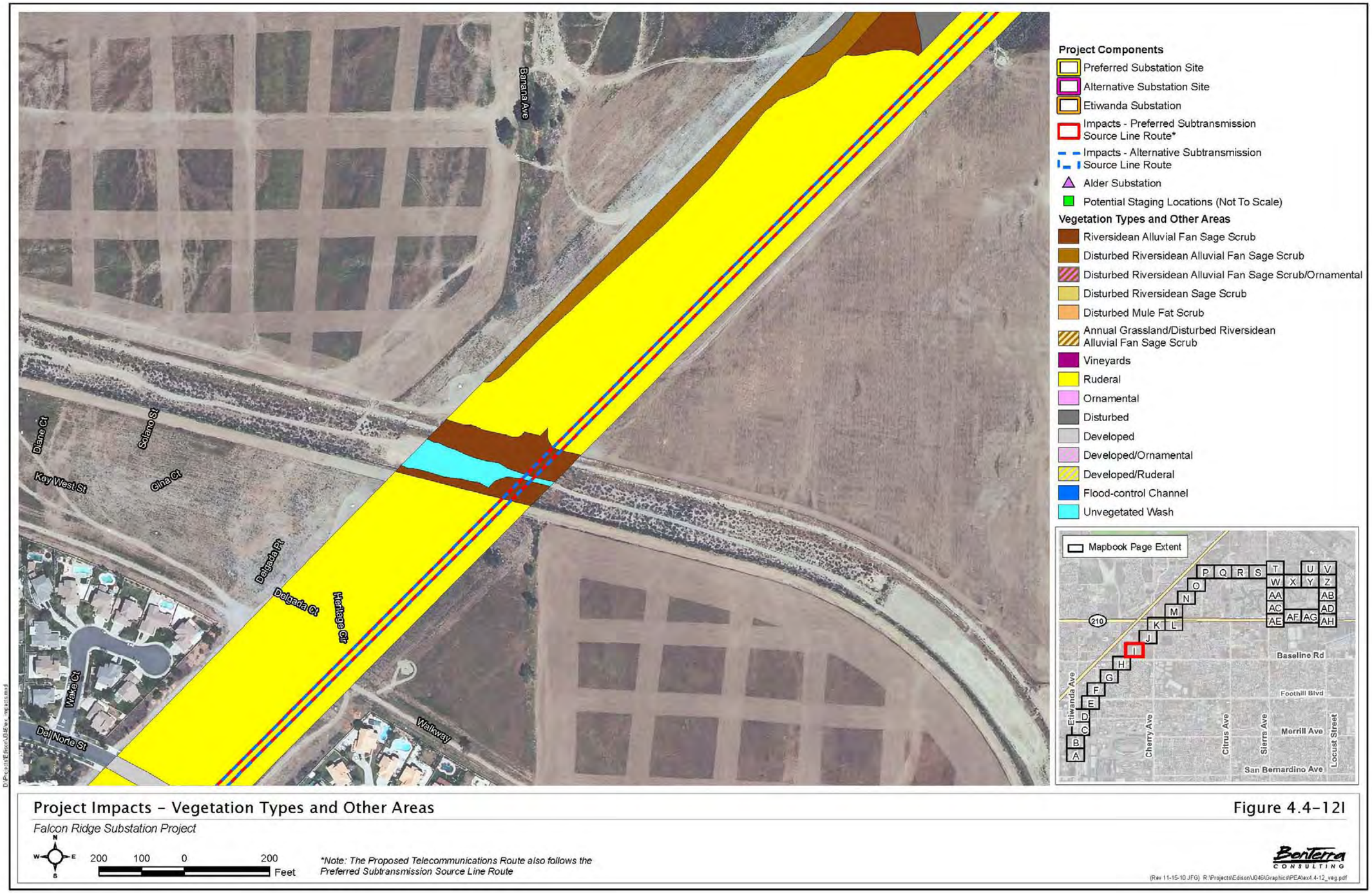
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12H

Falcon Ridge Substation Project

200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*



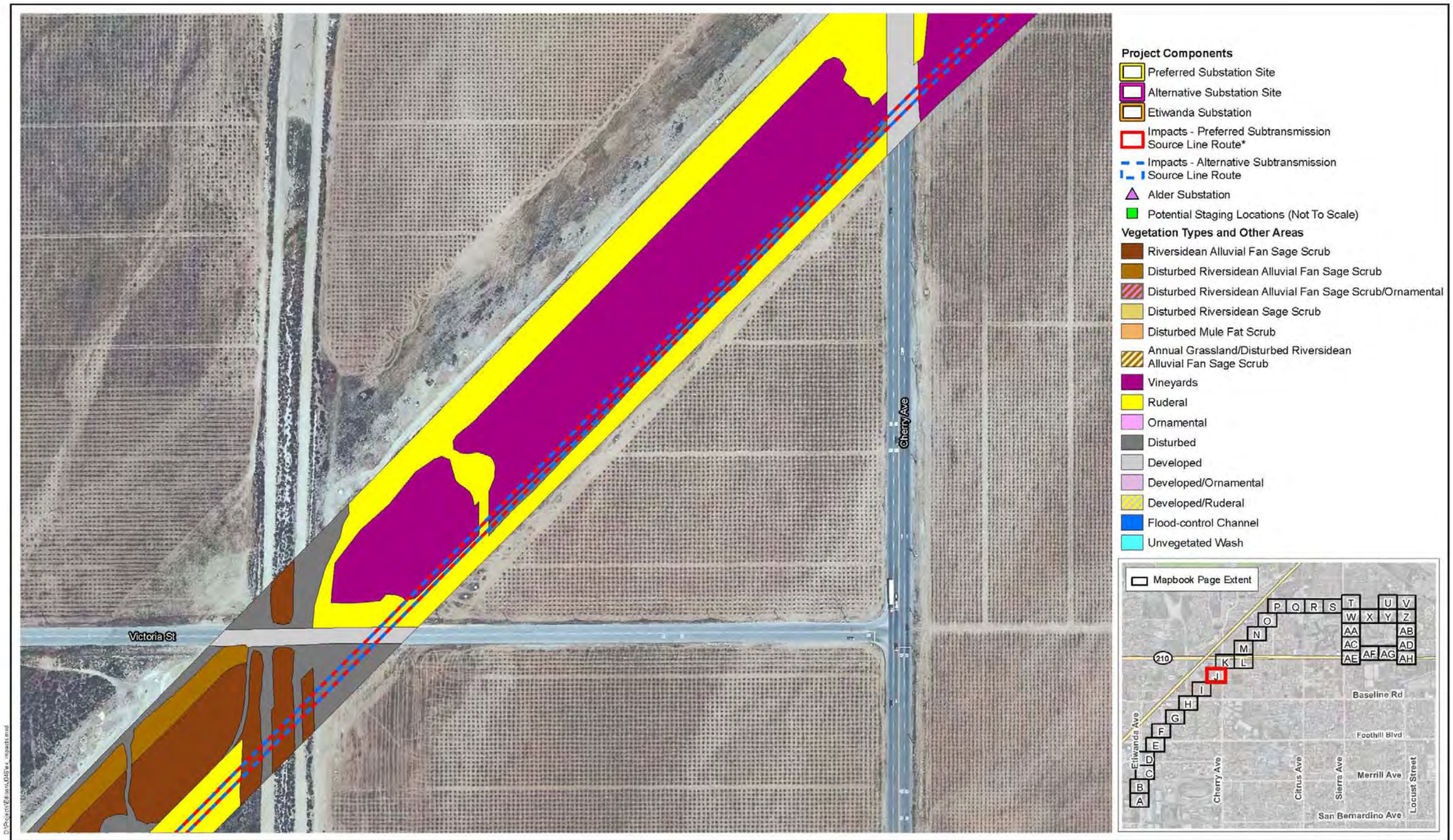
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12l

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\ex4.4-12_veg.pdf

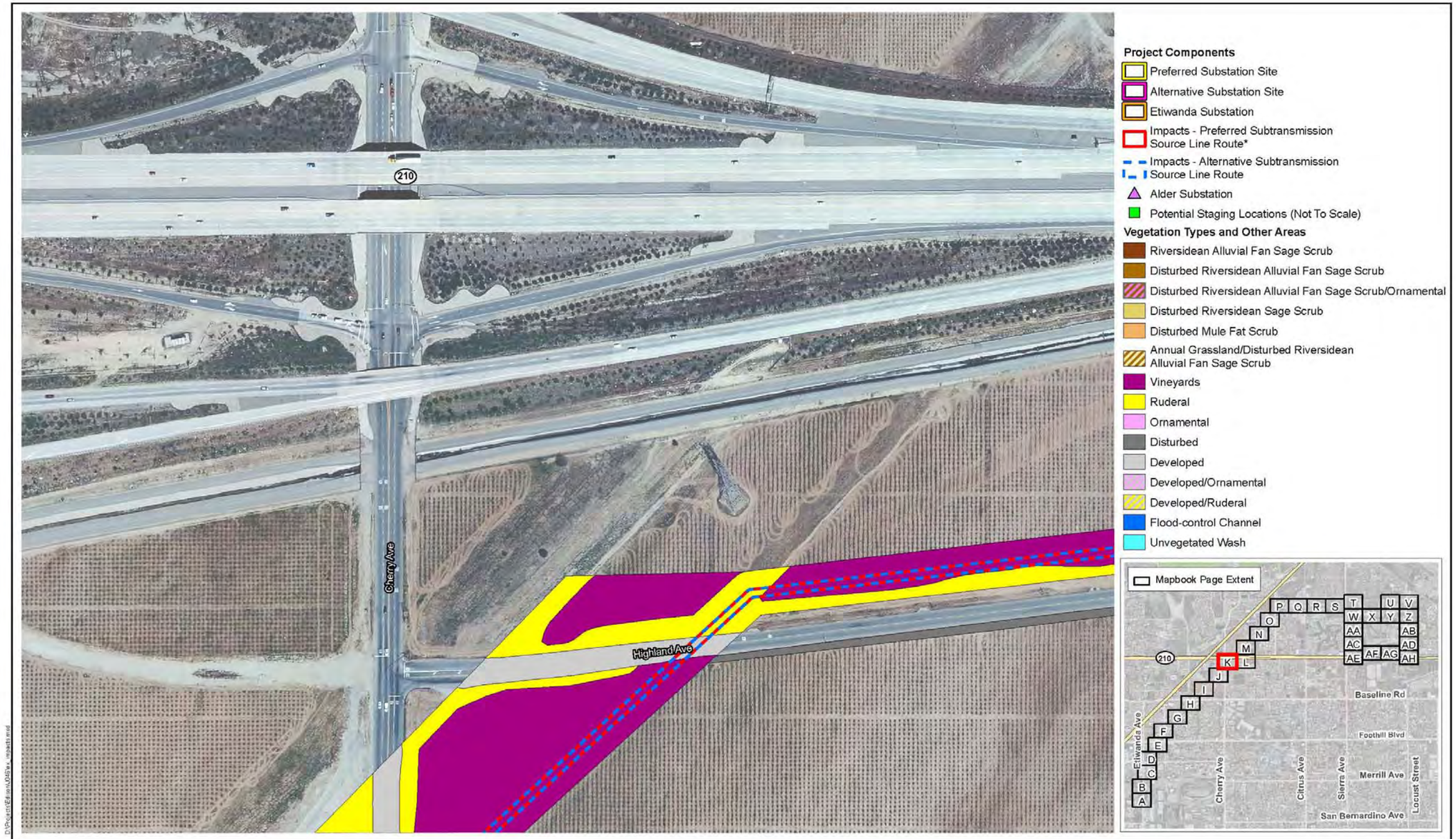


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12J

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*



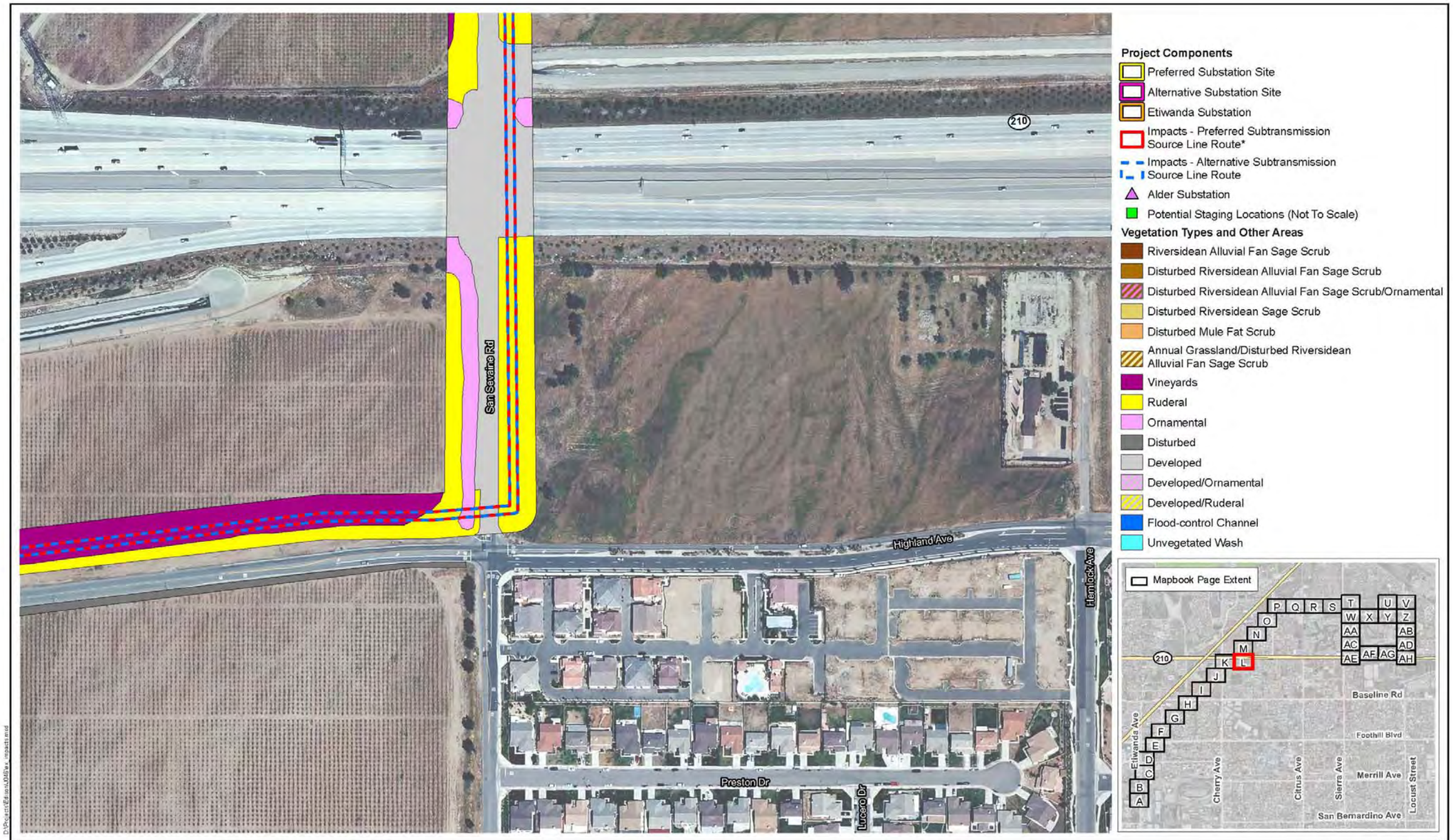
Project Impacts – Vegetation Types and Other Areas **Figure 4.4-12K**

Falcon Ridge Substation Project

200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\ex4.4-12_veg.pdf

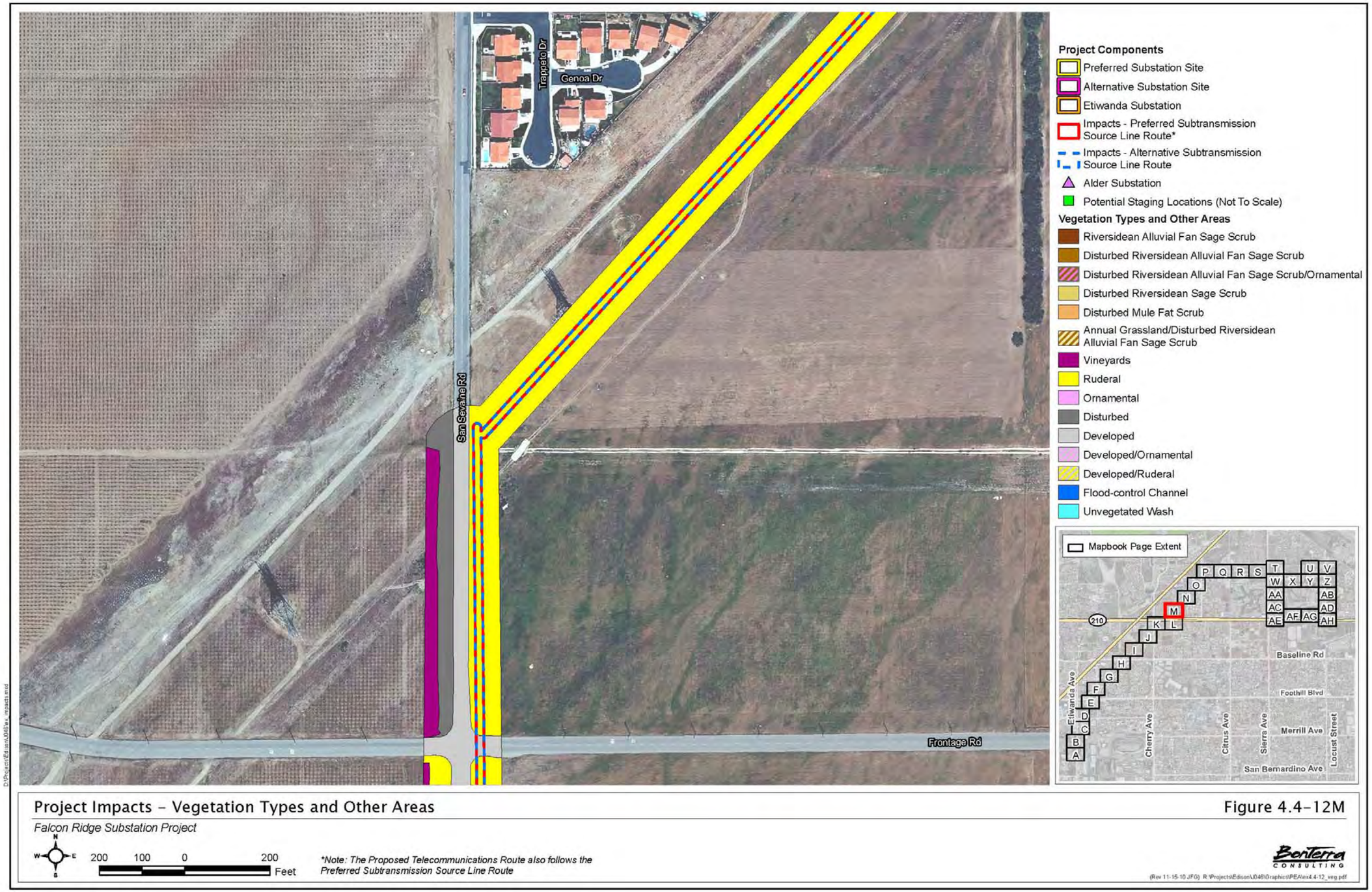


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12L

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*



Project Impacts – Vegetation Types and Other Areas

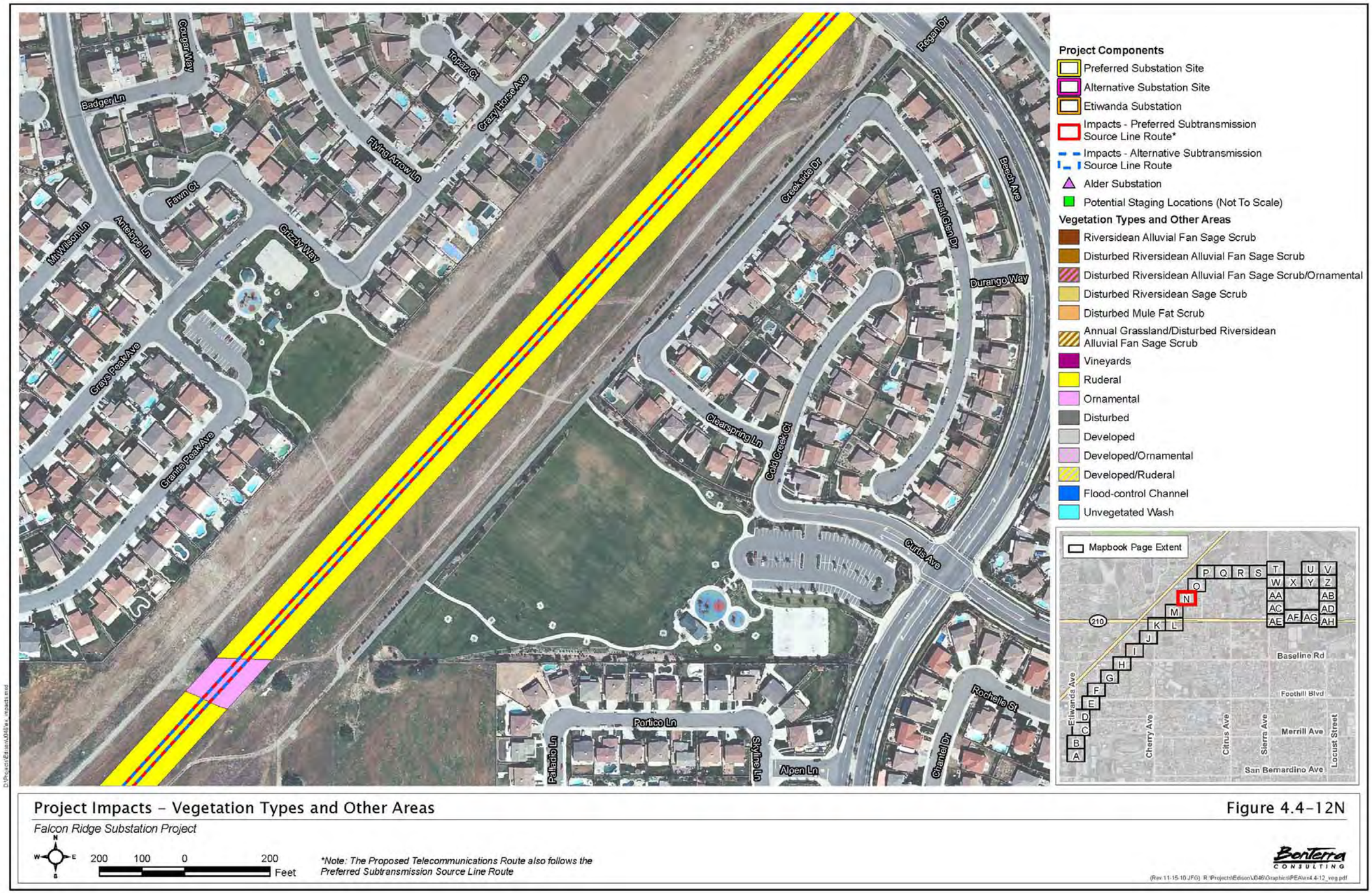
Figure 4.4-12M

Falcon Ridge Substation Project

200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\D046\Graphics\PEA\ex4.4-12_veg.pdf



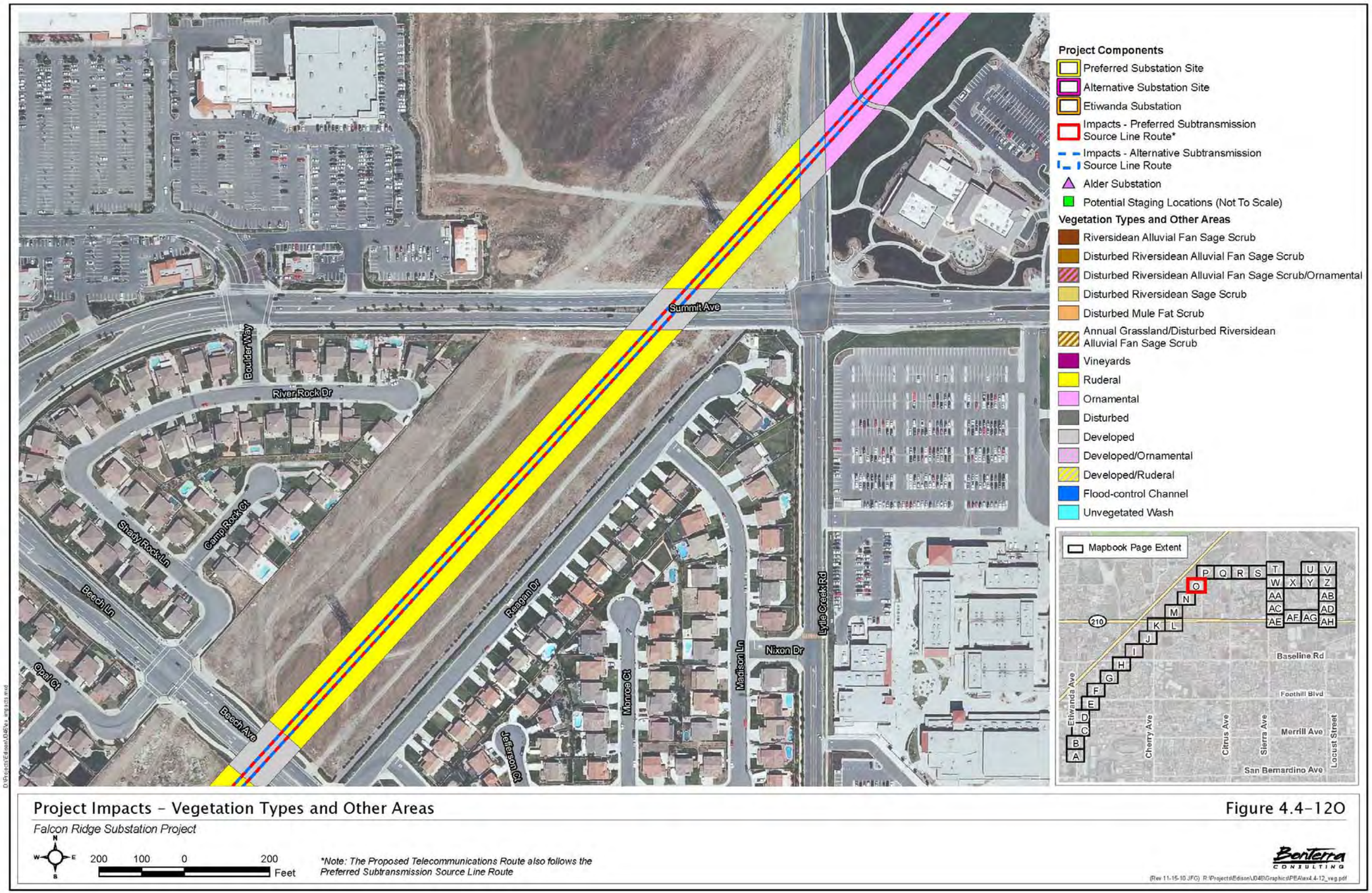
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12N

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\ex4.4-12_veg.pdf

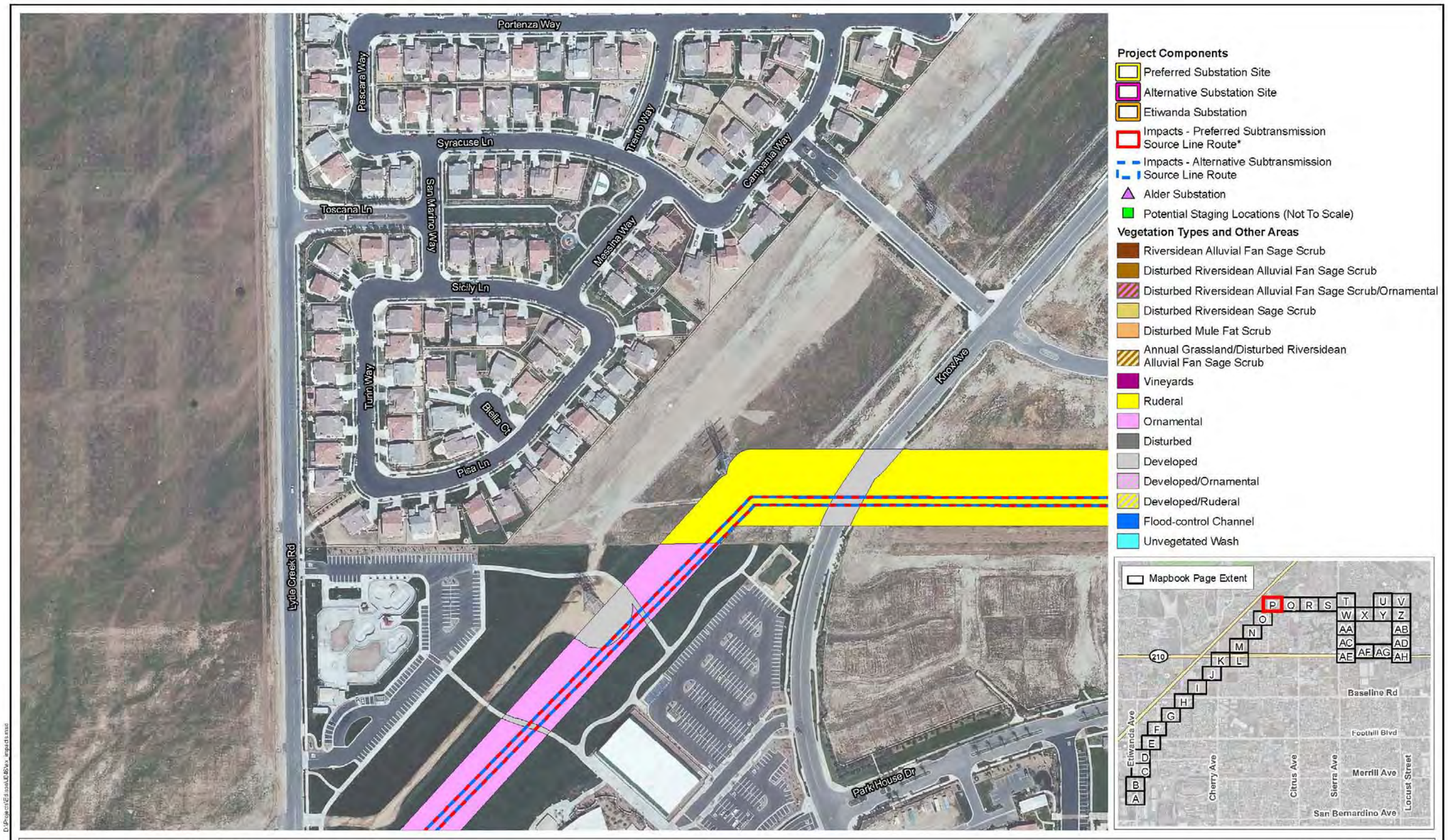


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-120

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*



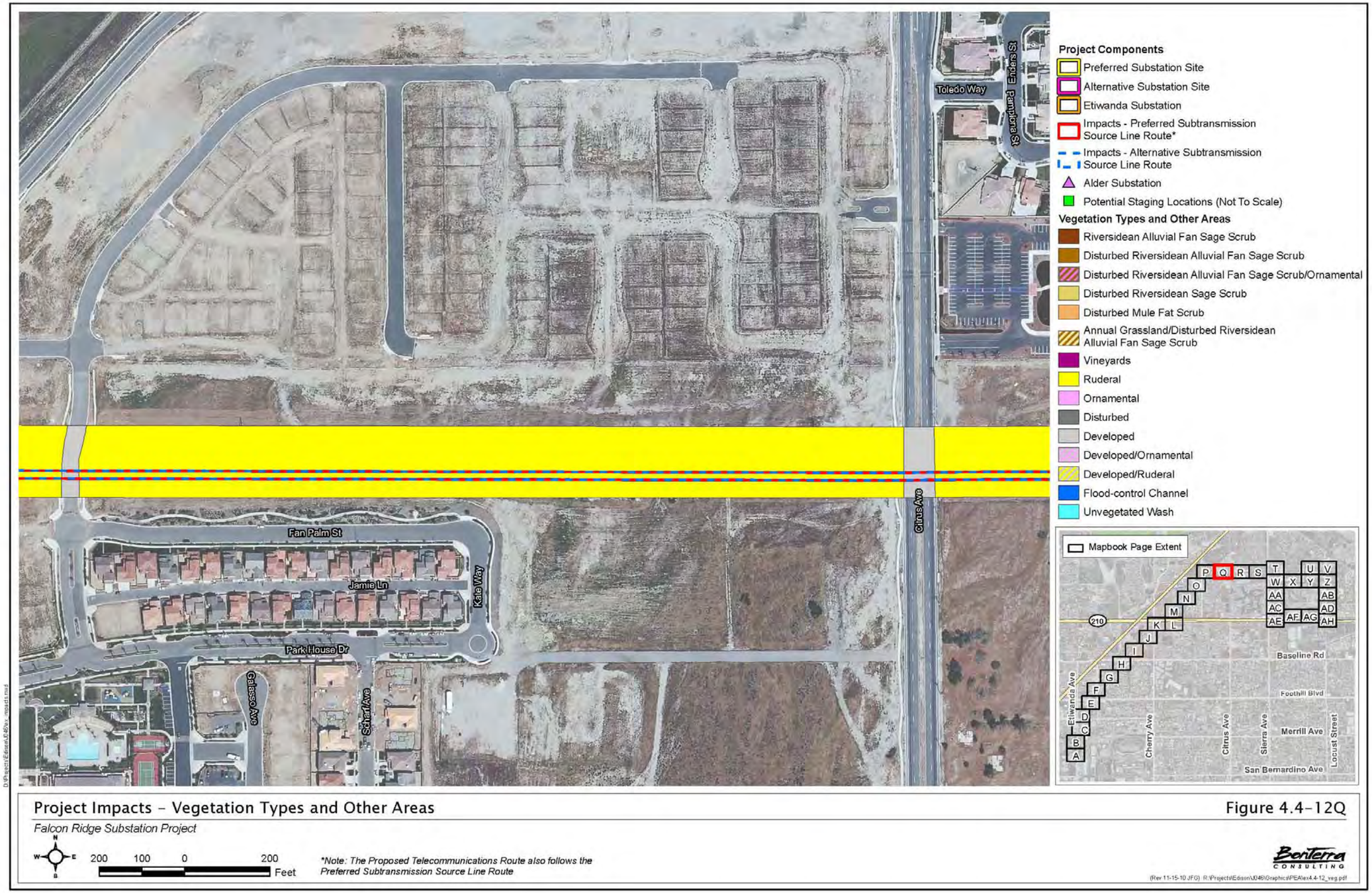
Project Impacts – Vegetation Types and Other Areas — Figure 4.4-12P

Falcon Ridge Substation Project

200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\U046\Graphics\PEA\ex4.4-12_veg.pdf



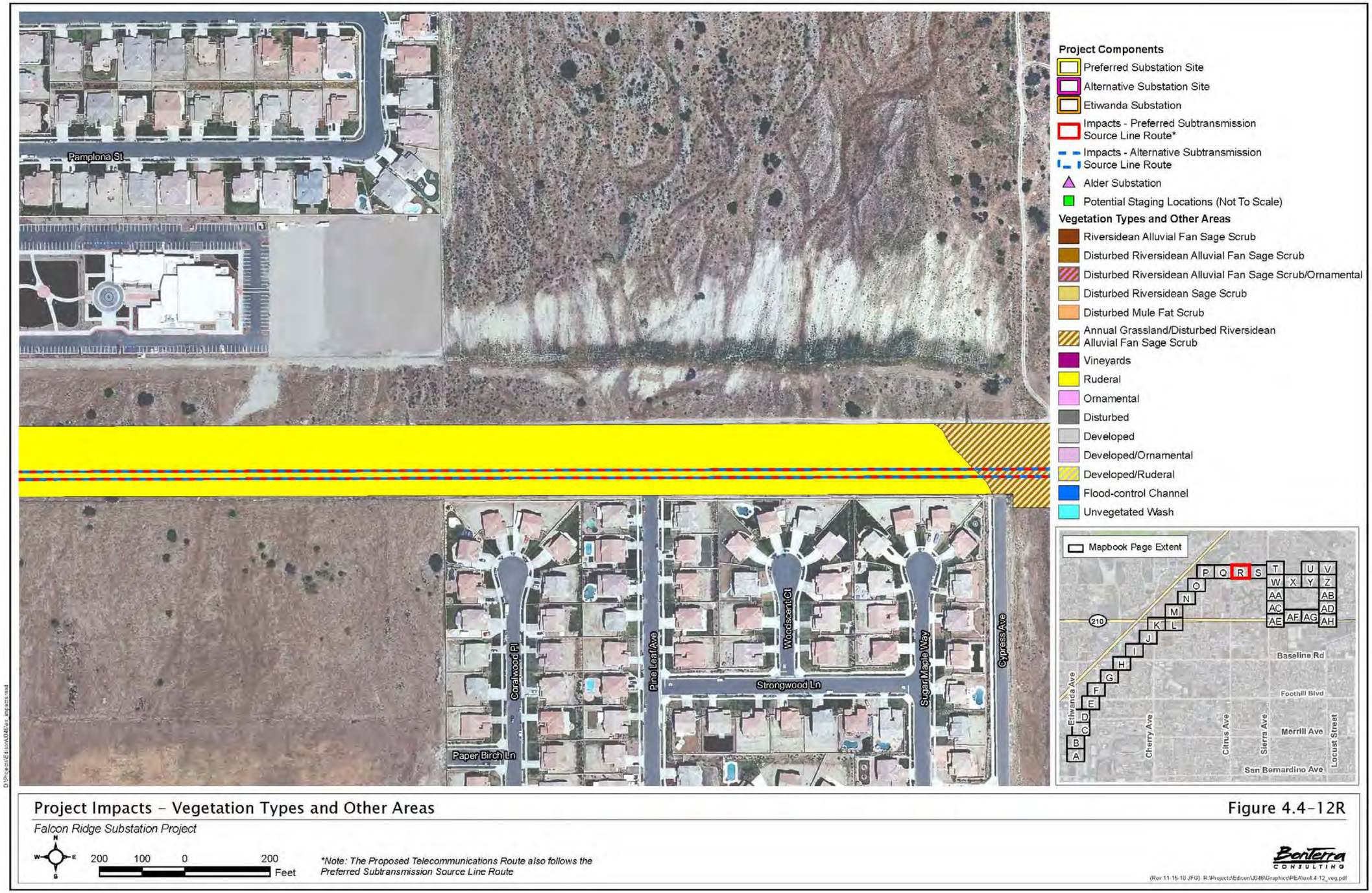
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12Q

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\JD46\Graphics\PEA\ex4.4-12_veg.pdf



Project Impacts – Vegetation Types and Other Areas

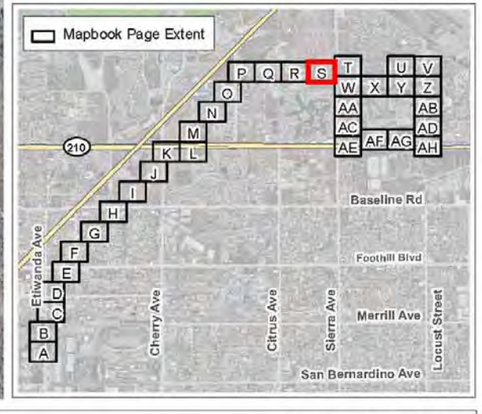
Figure 4.4-12R

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

Project Components
- Preferred Substation Site
- Alternative Substation Site
- Etiwanda Substation
- Impacts - Preferred Subtransmission Source Line Route*
- Impacts - Alternative Subtransmission Source Line Route
- Alder Substation
- Potential Staging Locations (Not To Scale)

Vegetation Types and Other Areas
- Riversidean Alluvial Fan Sage Scrub
- Disturbed Riversidean Alluvial Fan Sage Scrub
- Disturbed Riversidean Alluvial Fan Sage Scrub/Ornamental
- Disturbed Riversidean Sage Scrub
- Disturbed Mule Fat Scrub
- Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub
- Vineyards
- Ruderal
- Ornamental
- Disturbed
- Developed
- Developed/Ornamental
- Developed/Ruderal
- Flood-control Channel
- Unvegetated Wash



D:\Projects\Edison\JD46\x_impacts.mxd

Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12S

Falcon Ridge Substation Project

N W E S 200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

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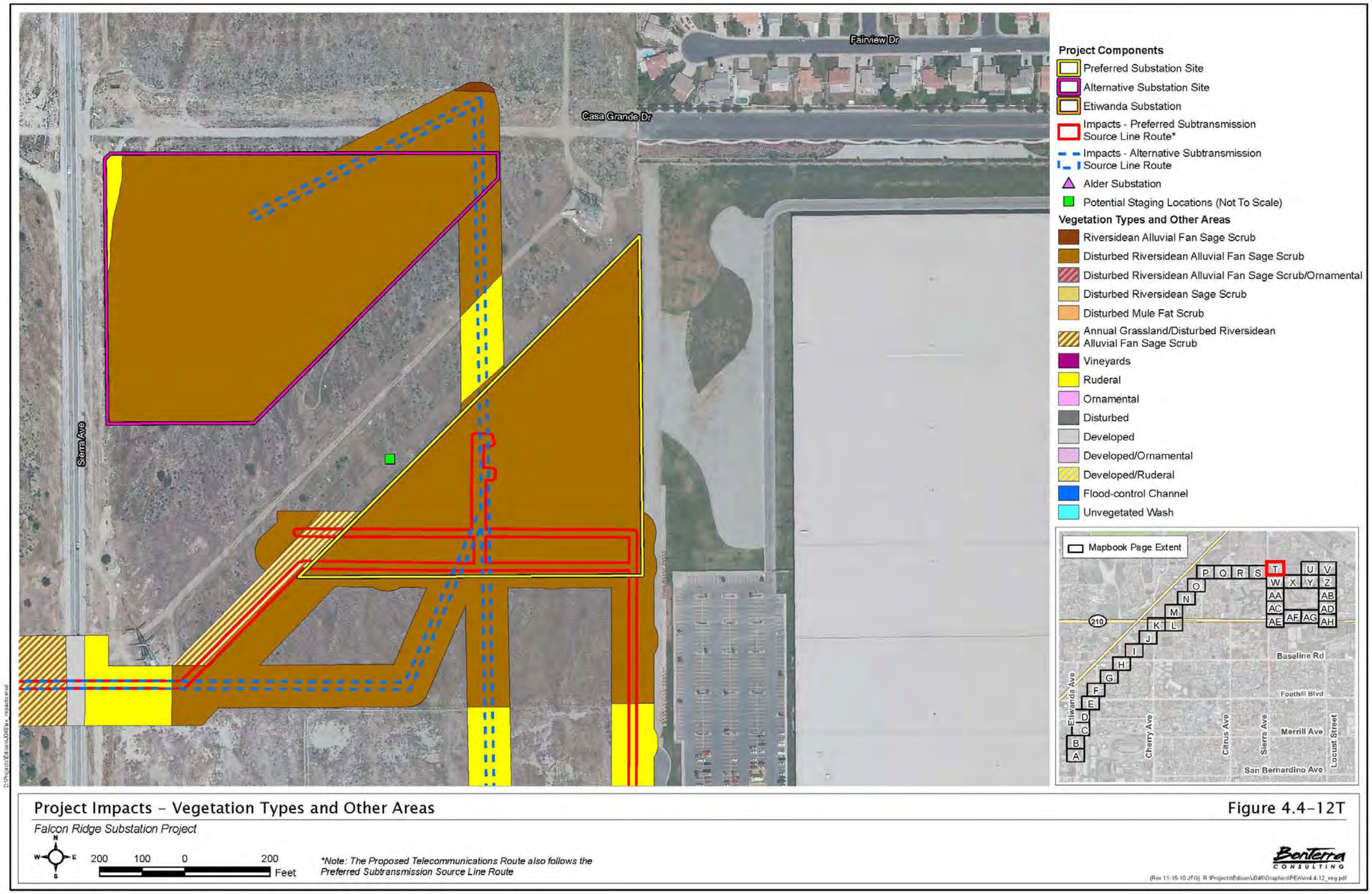
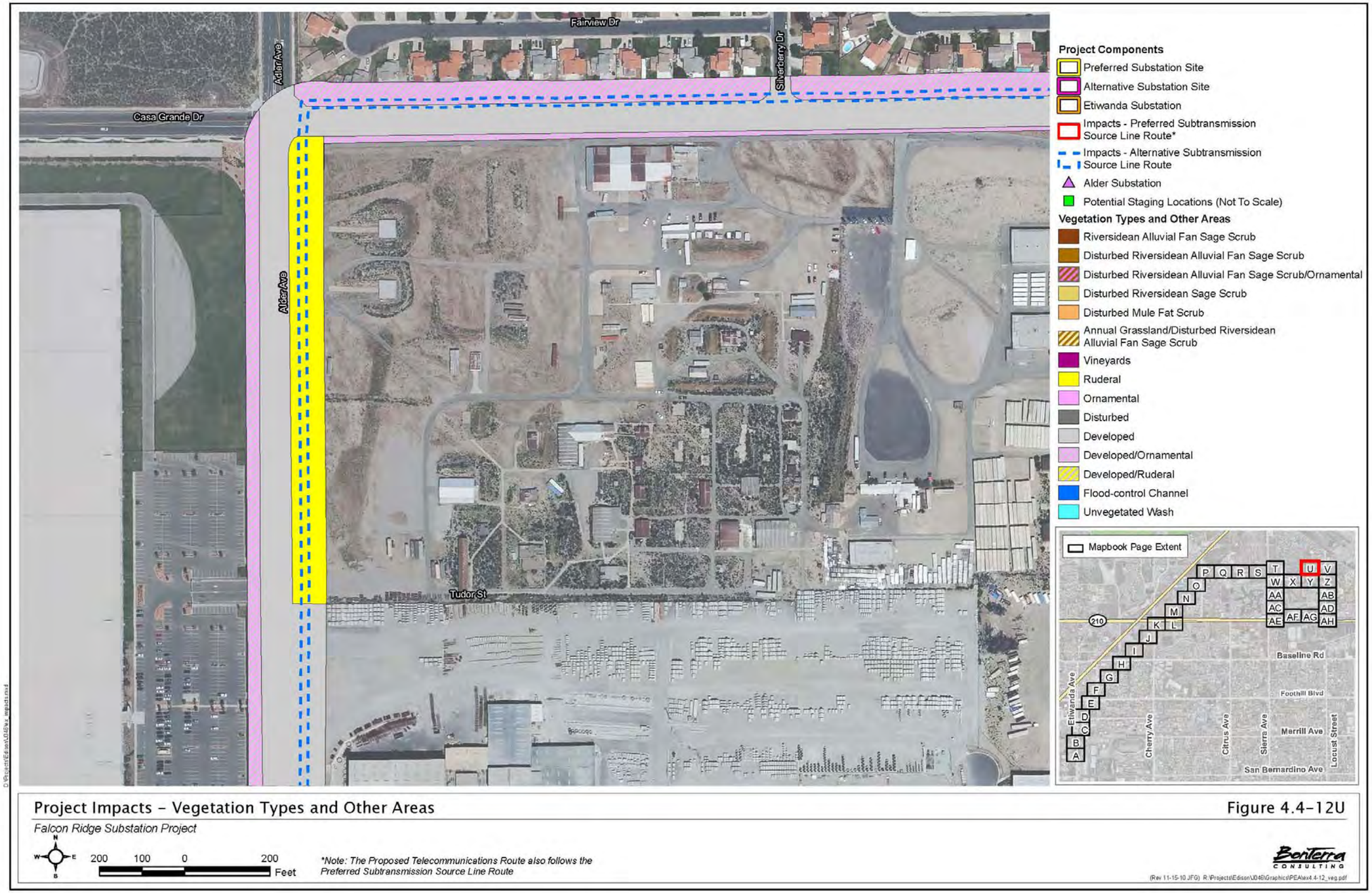
(Rev 11-15-10 JFG) R:\Projects\Edison\JD46\Graphics\PEA\ex4.4-12_veg.pdf



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12T

Falcon Ridge Substation Project



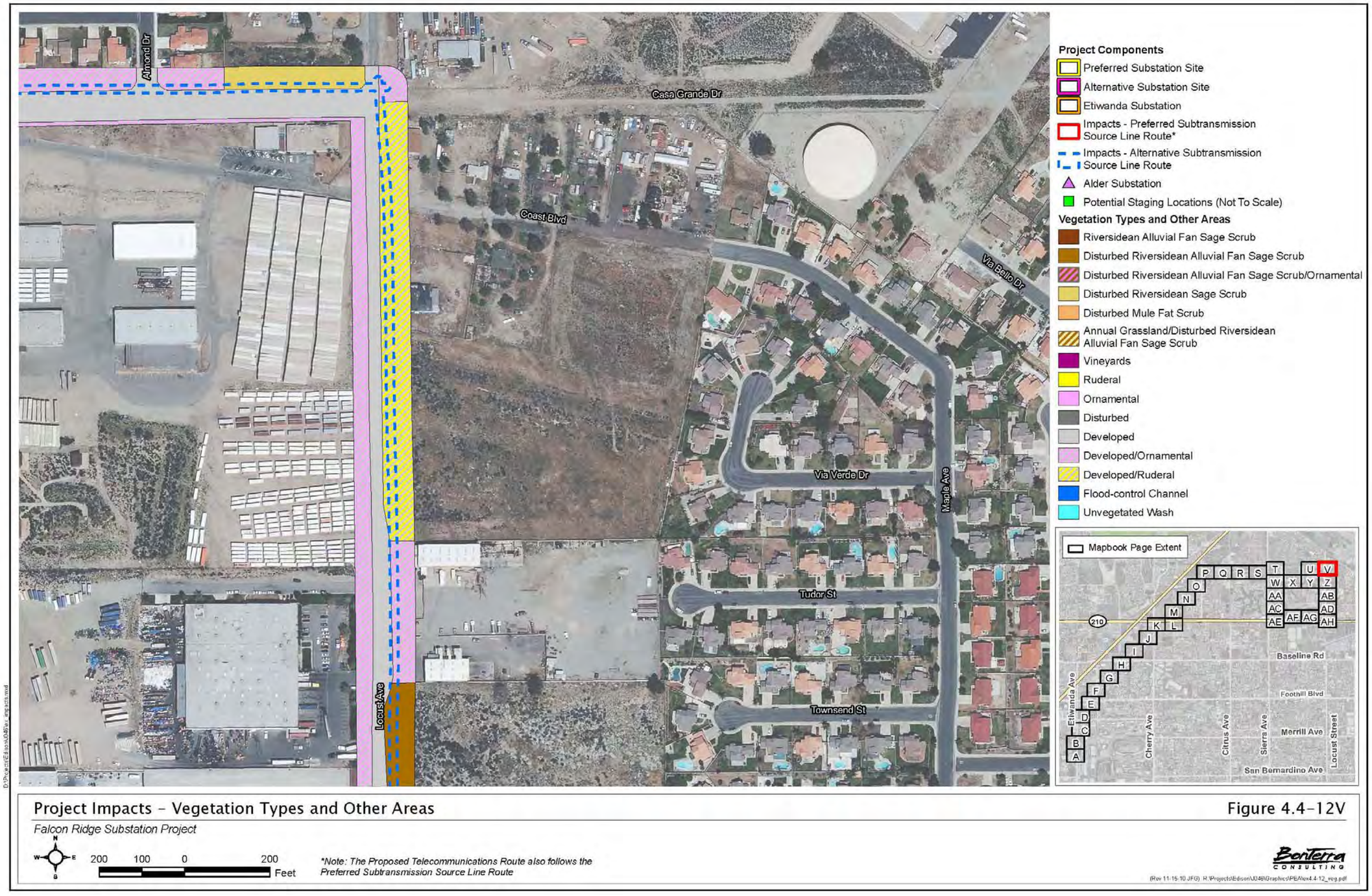
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12U

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\ex4.4-12_veg.pdf

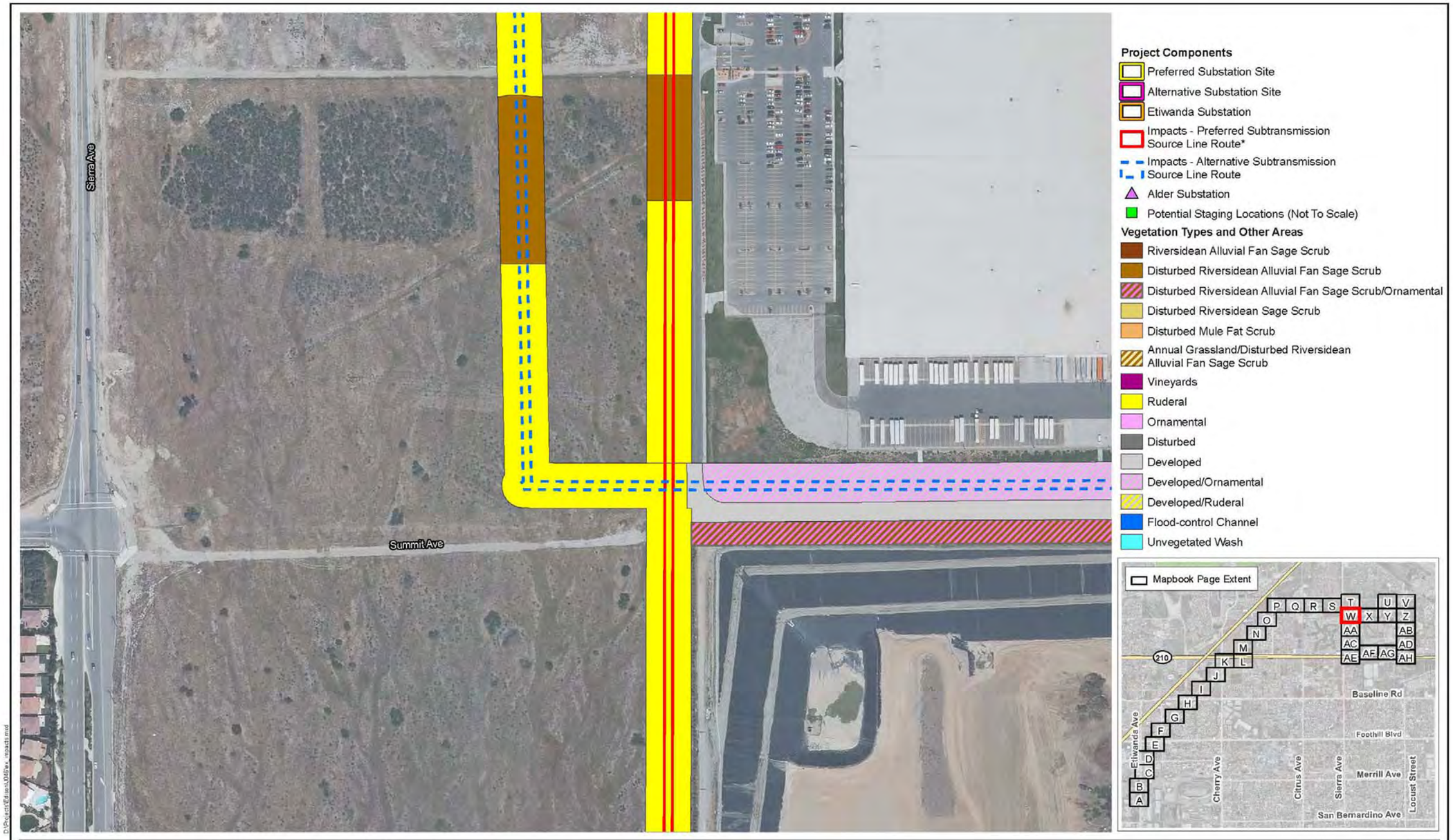


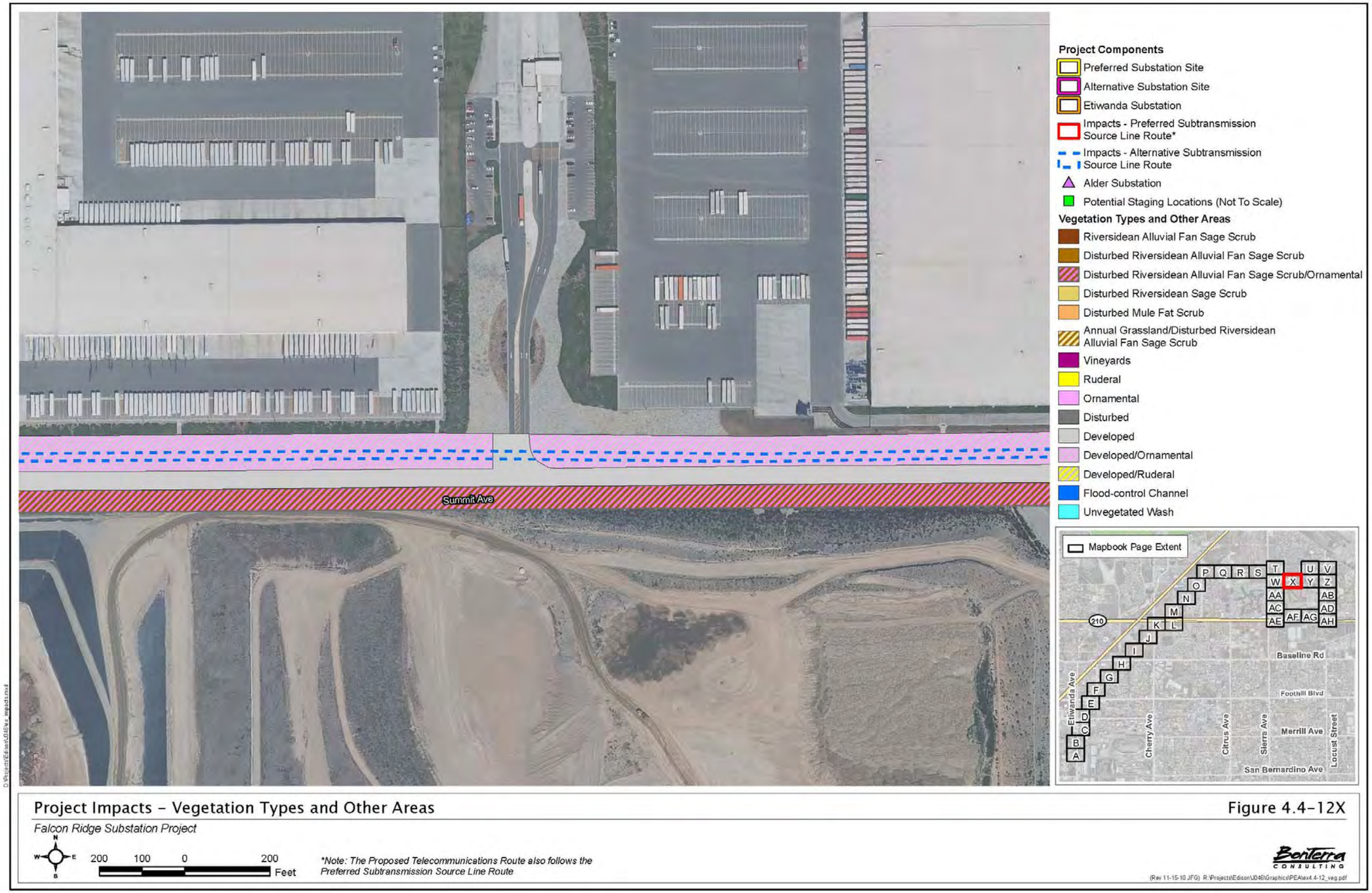
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12V

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

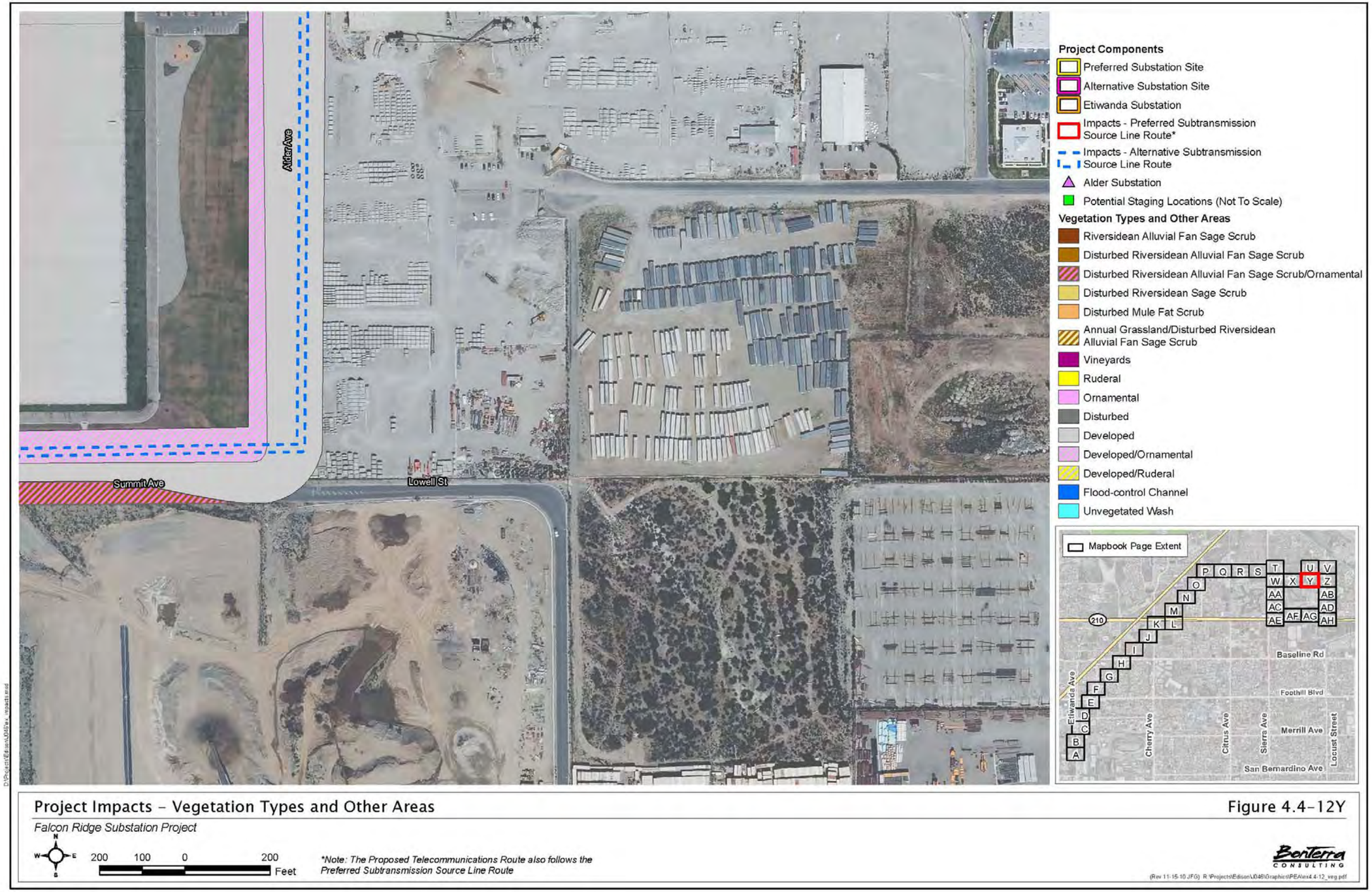

Sierra Ave
Summit Ave
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Impacts - Preferred Subtransmission Source Line Route*
Impacts - Alternative Subtransmission Source Line Route
Alder Substation
Potential Staging Locations (Not To Scale)
Vegetation Types and Other Areas
Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub
Disturbed Riversidean Alluvial Fan Sage Scrub/Ornamental
Disturbed Riversidean Sage Scrub
Disturbed Mule Fat Scrub
Annual Grassland/Disturbed Riversidean Alluvial Fan Sage Scrub
Vineyards
Ruderal
Ornamental
Disturbed
Developed
Developed/Ornamental
Developed/Ruderal
Flood-control Channel
Unvegetated Wash
Mapbook Page Extent
210
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
200 100 0 200 Feet
*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route
Project Impacts – Vegetation Types and Other Areas
Figure 4.4-12W
Falcon Ridge Substation Project
Berterra CONSULTING



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12X

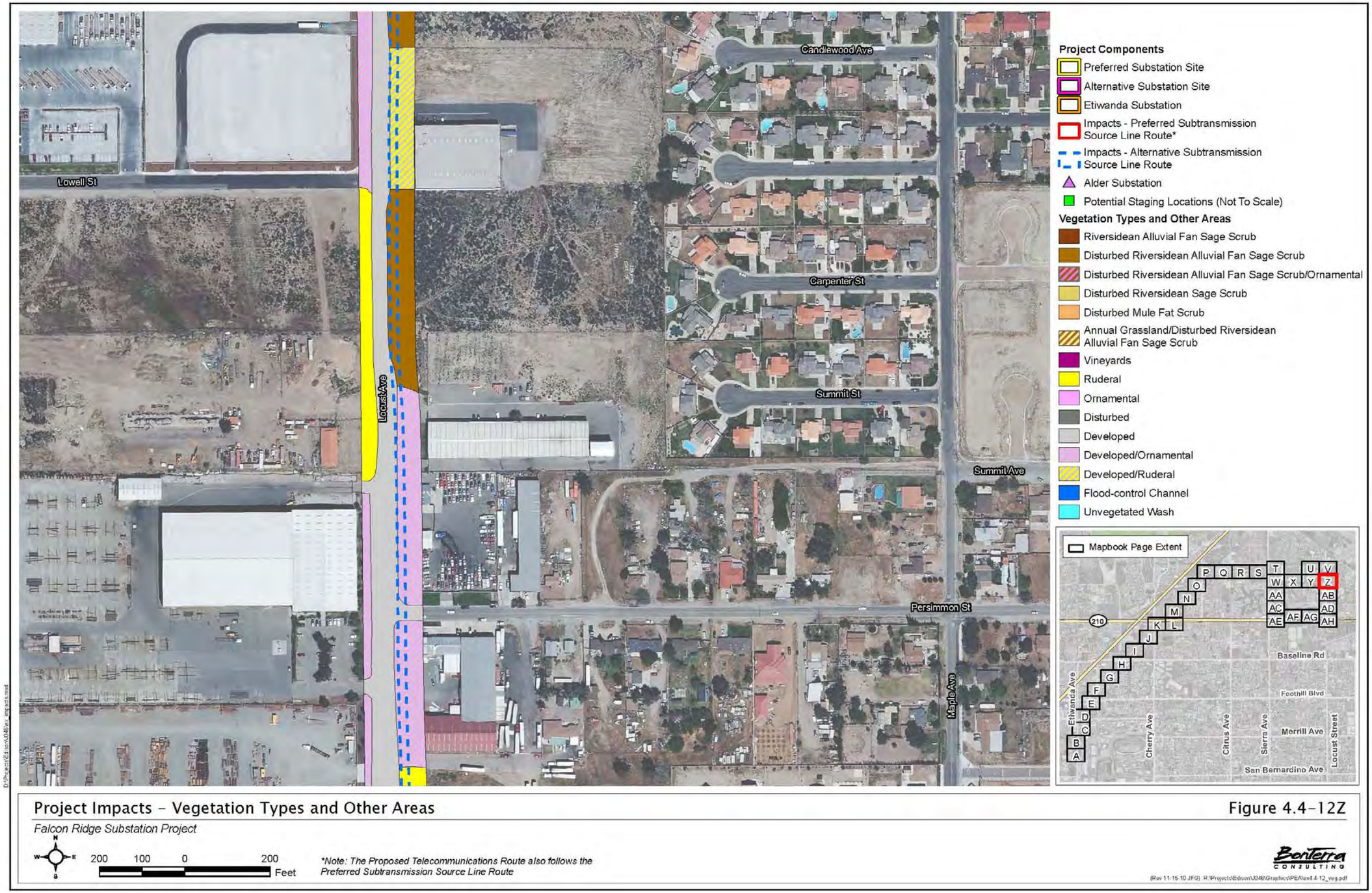
Falcon Ridge Substation Project



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12Y

Falcon Ridge Substation Project



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12Z

Falcon Ridge Substation Project

N W E S

200 100 0 200 Feet

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

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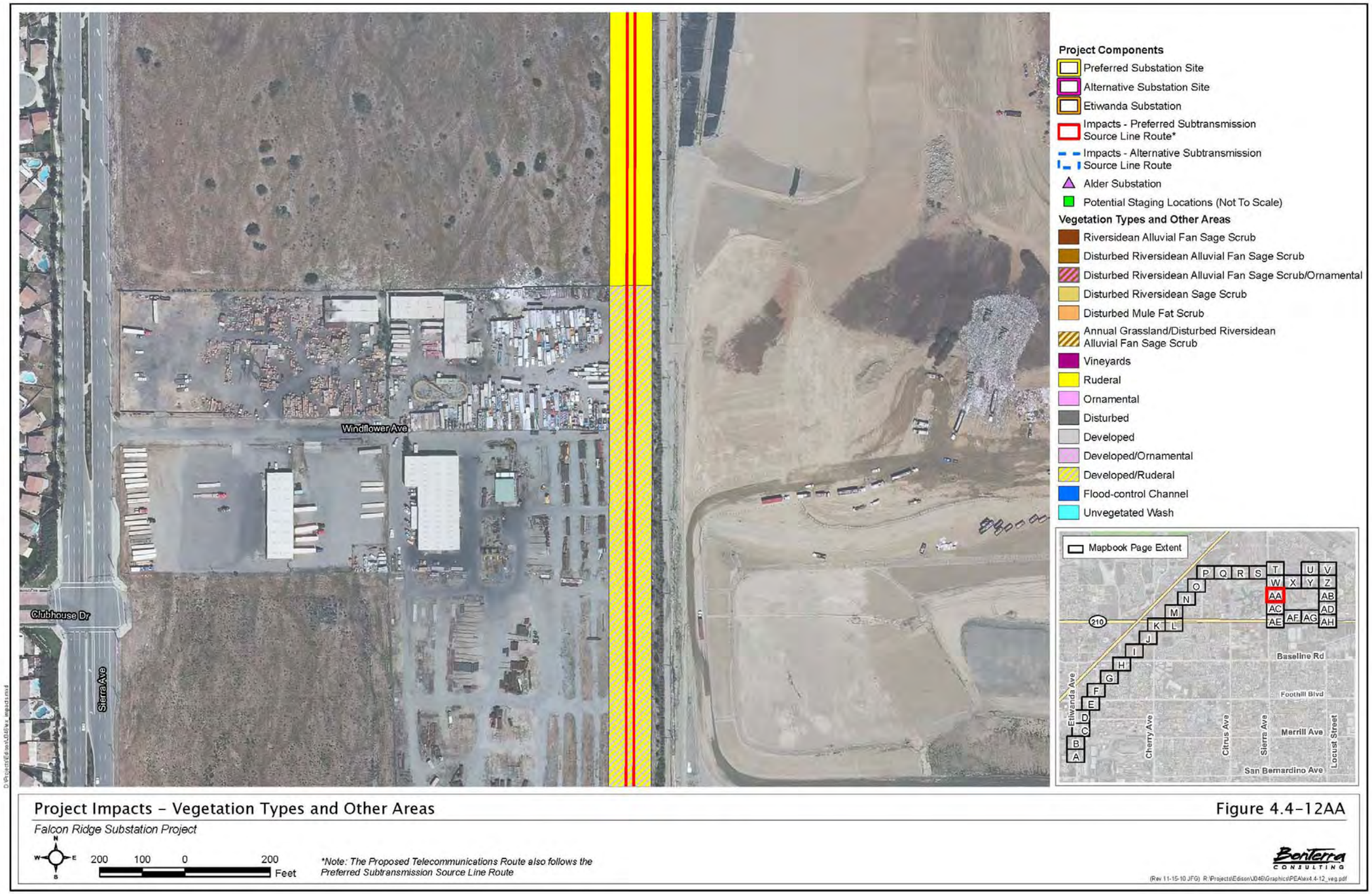
(Rev 11-15-10 JFG) R:\Projects\Edison\UU46\Graphics\PEA\ex4.4-12_veg.pdf



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AA

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

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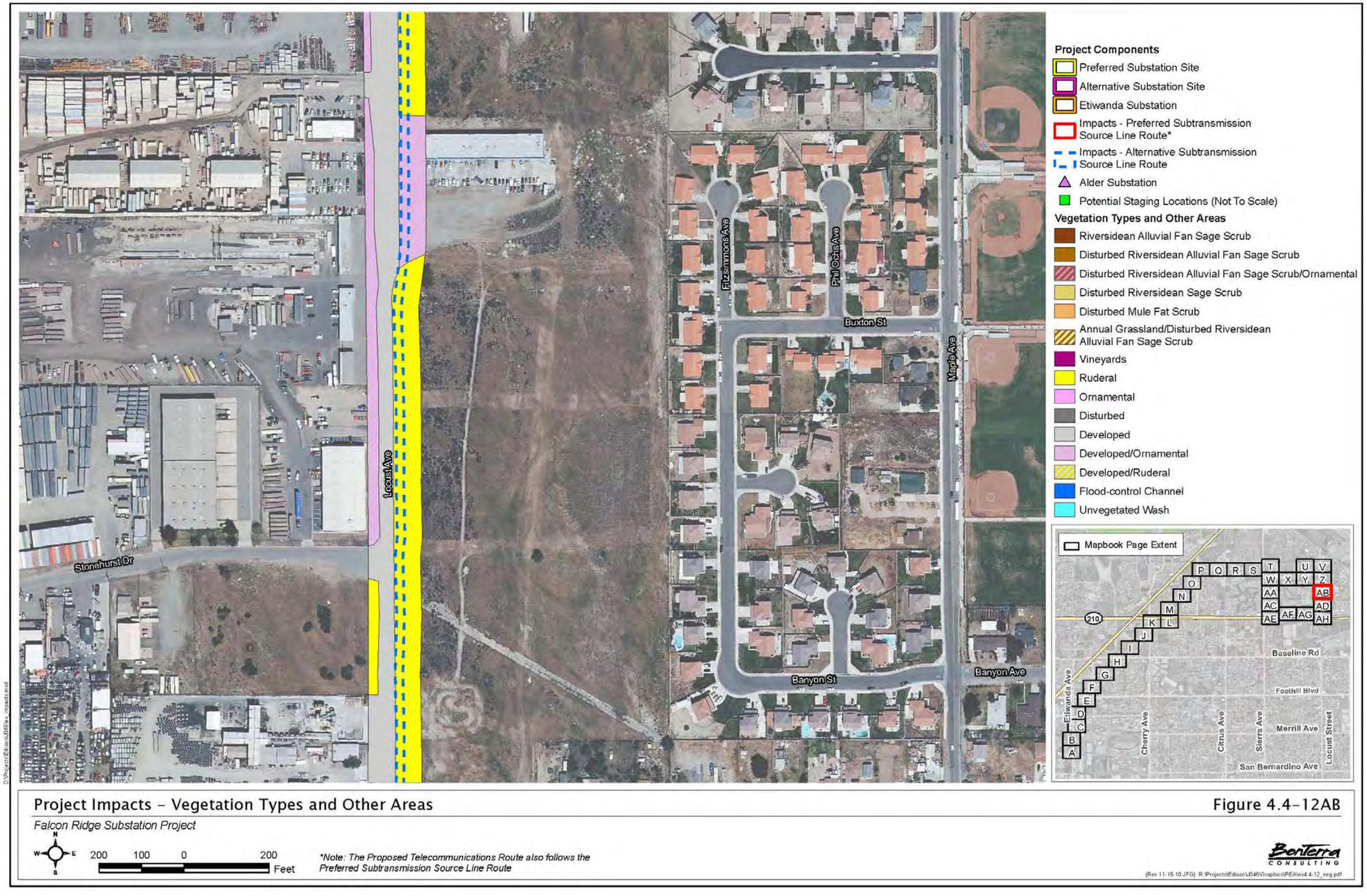


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AB

Falcon Ridge Substation Project

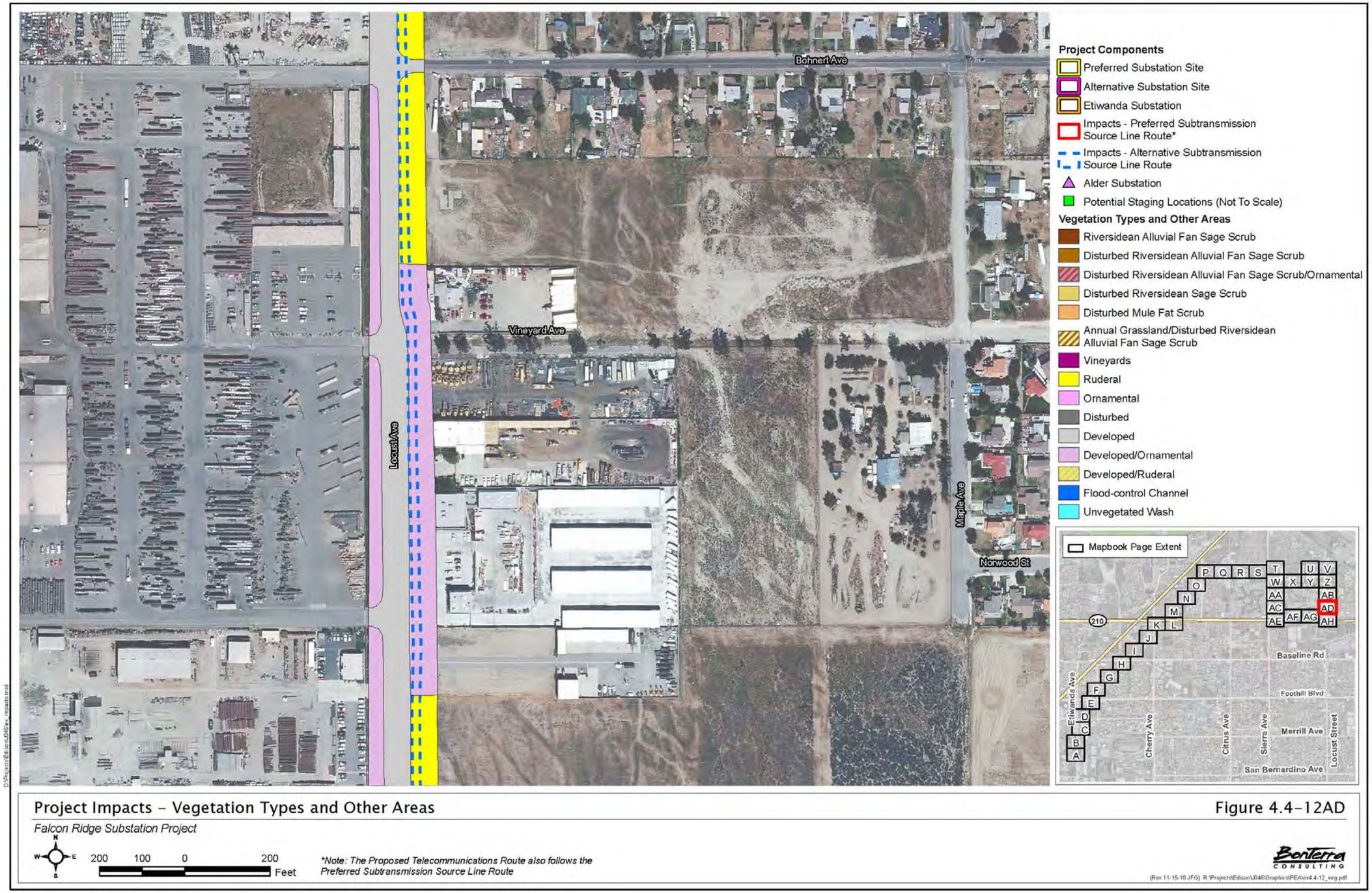
**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AC

Falcon Ridge Substation Project

(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\ex4.4-12_veg.pdf



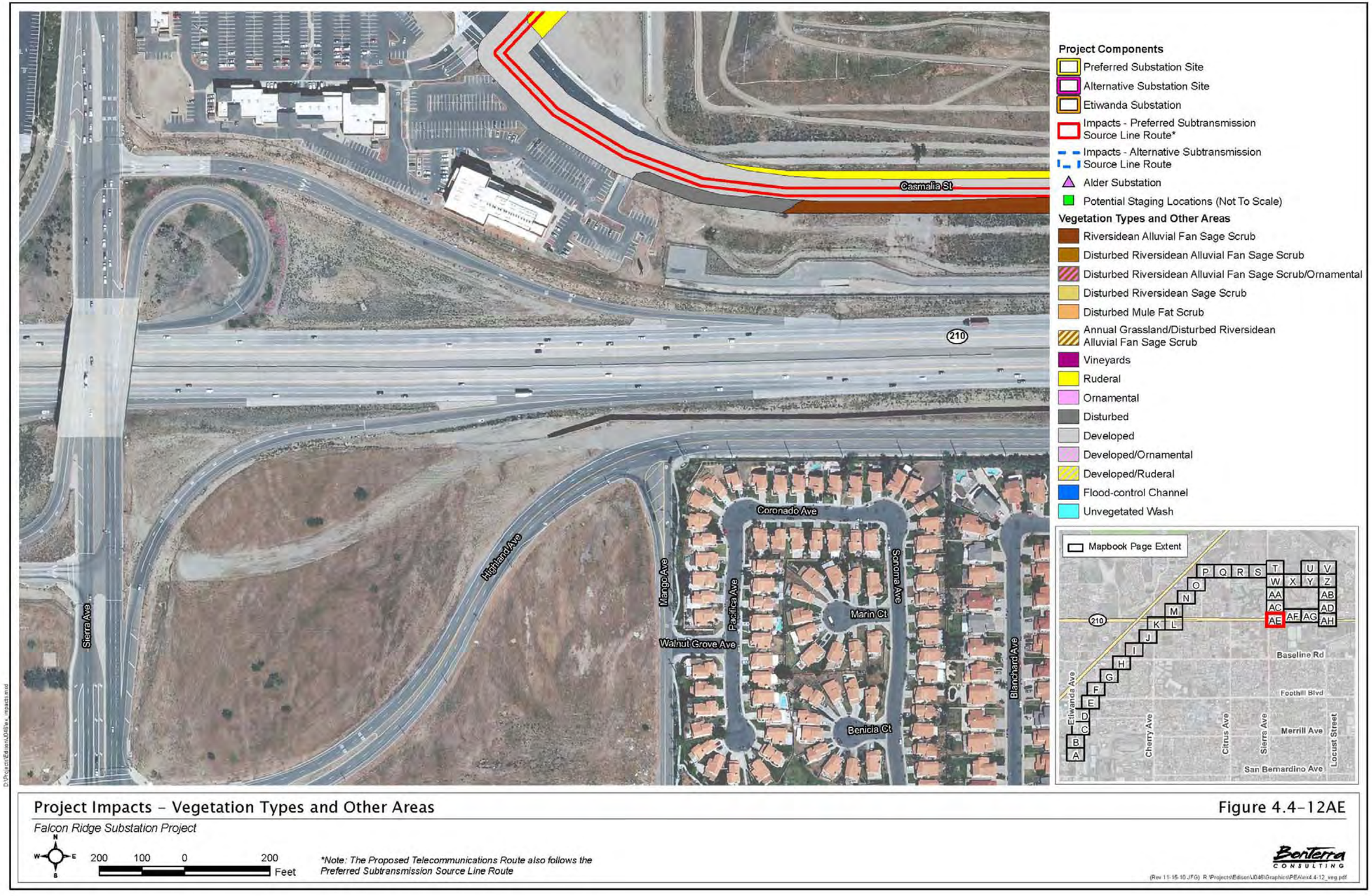
Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AD

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

(Rev 11-15-10 JFG) R:\Projects\Edison\0046\Graphics\PEA\ex4.4-12_veg.pdf

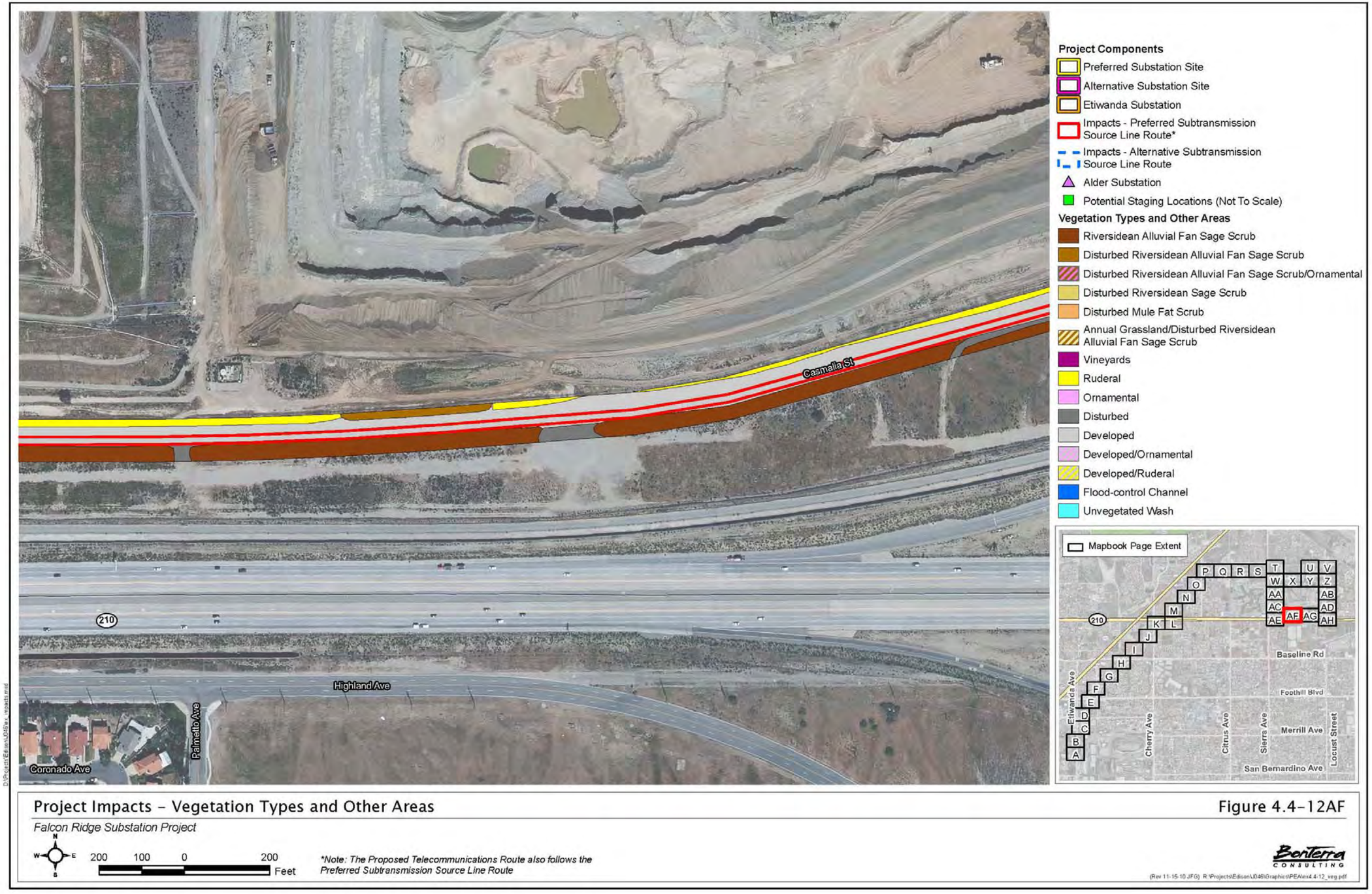


Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AE

Falcon Ridge Substation Project

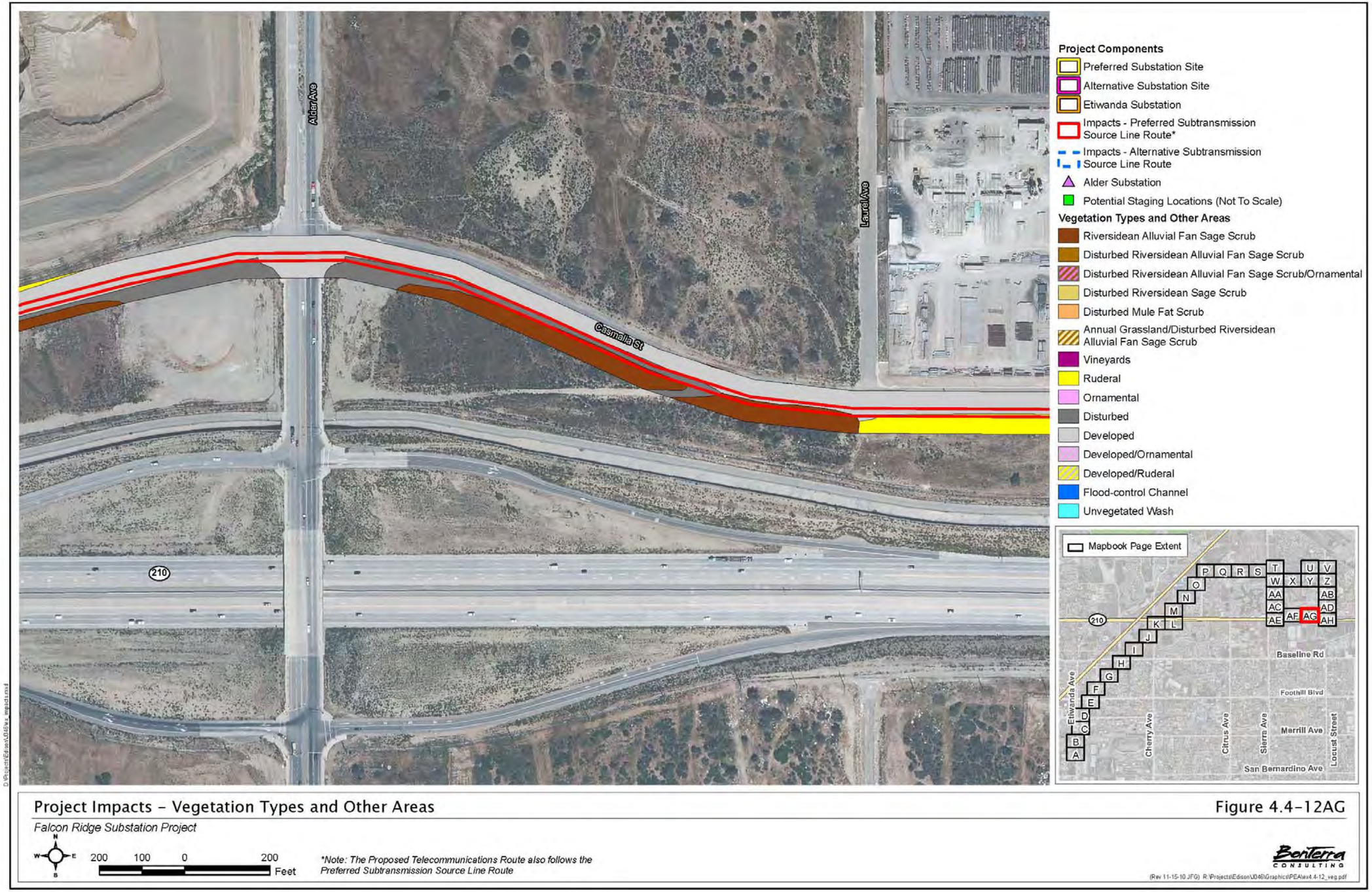
*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AF

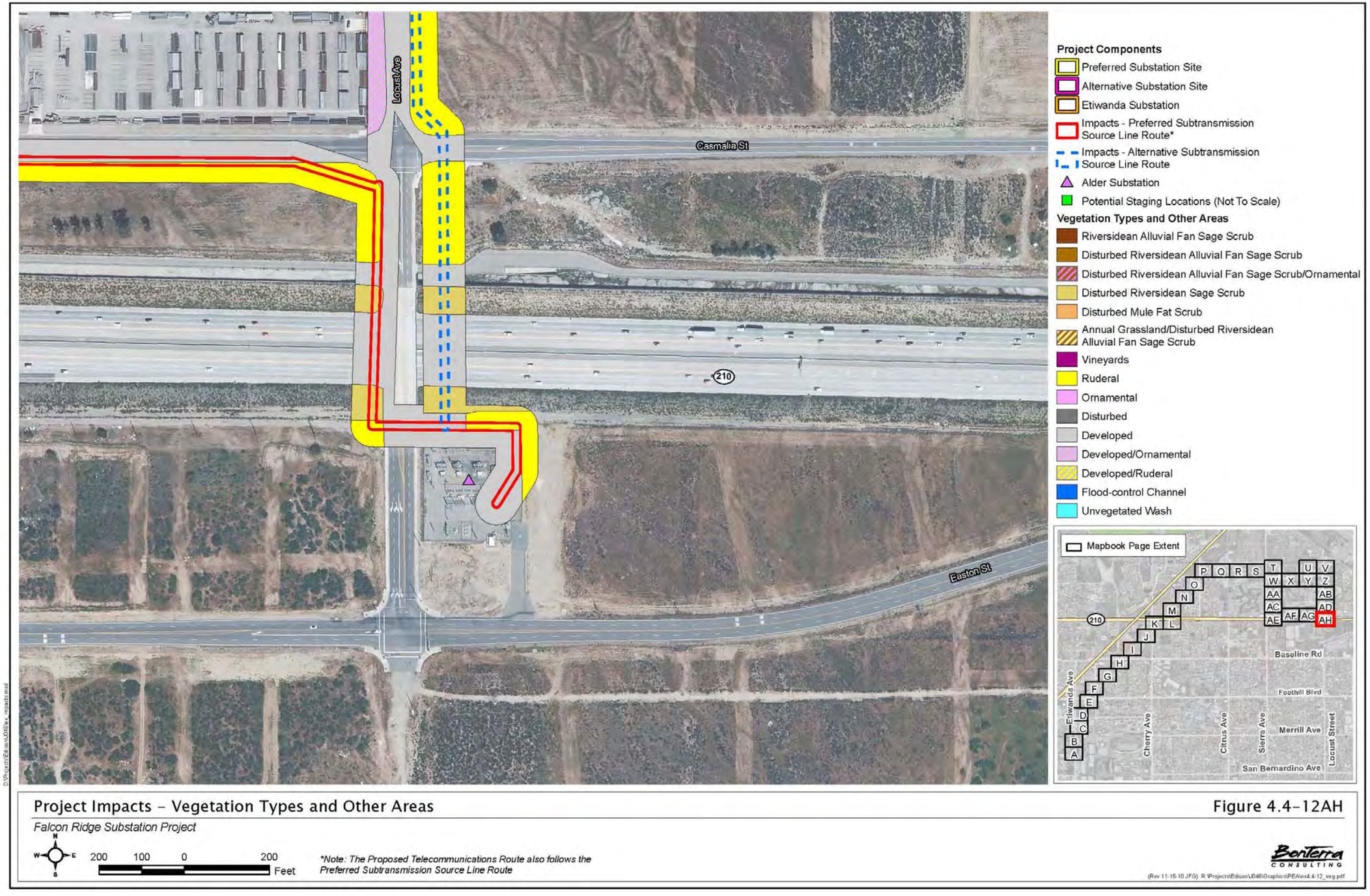
Falcon Ridge Substation Project



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AG

Falcon Ridge Substation Project



Project Impacts – Vegetation Types and Other Areas

Figure 4.4-12AH

Falcon Ridge Substation Project

**Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route*

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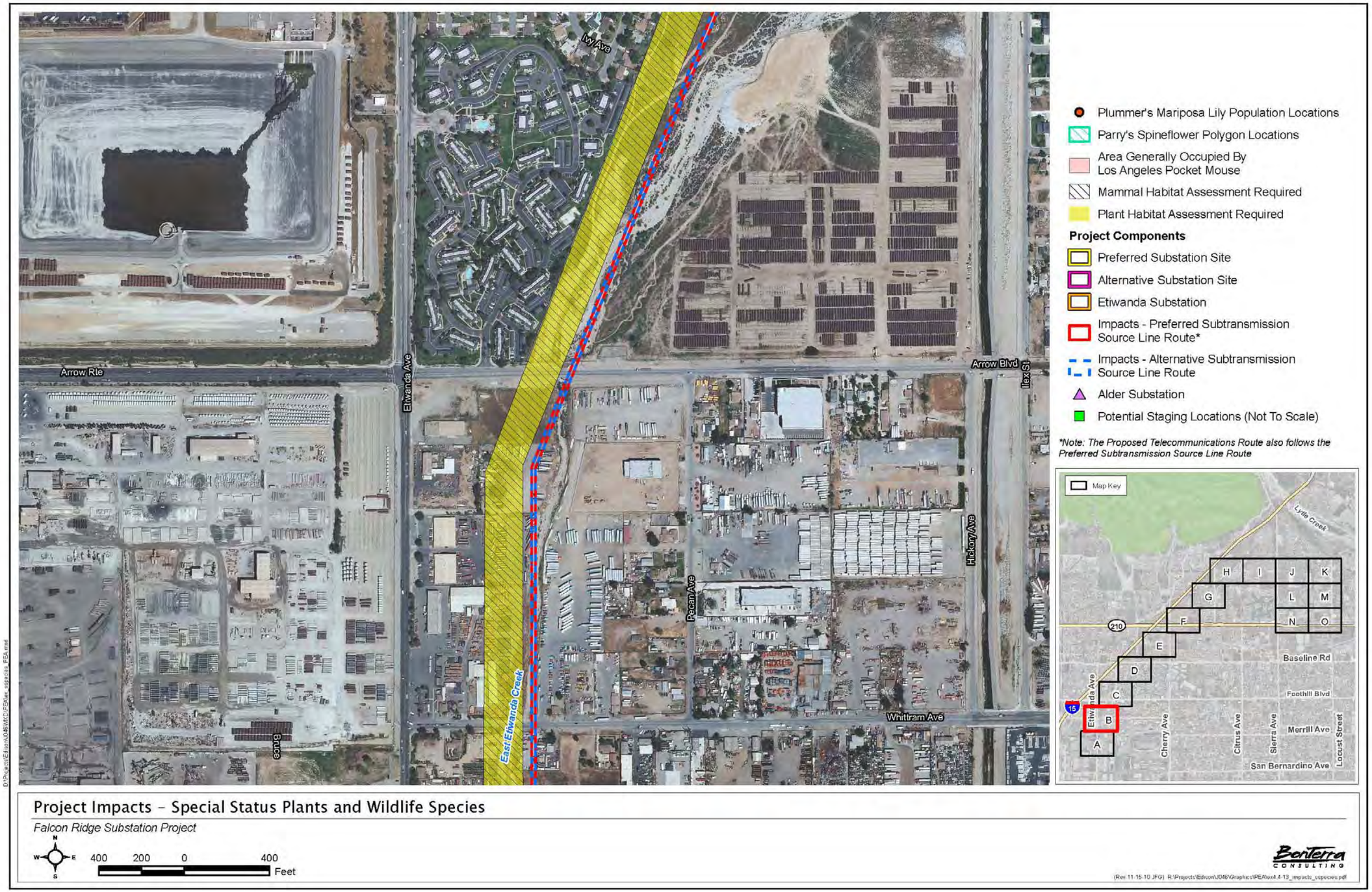
(Rev 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\ex4.4-12_veg.pdf

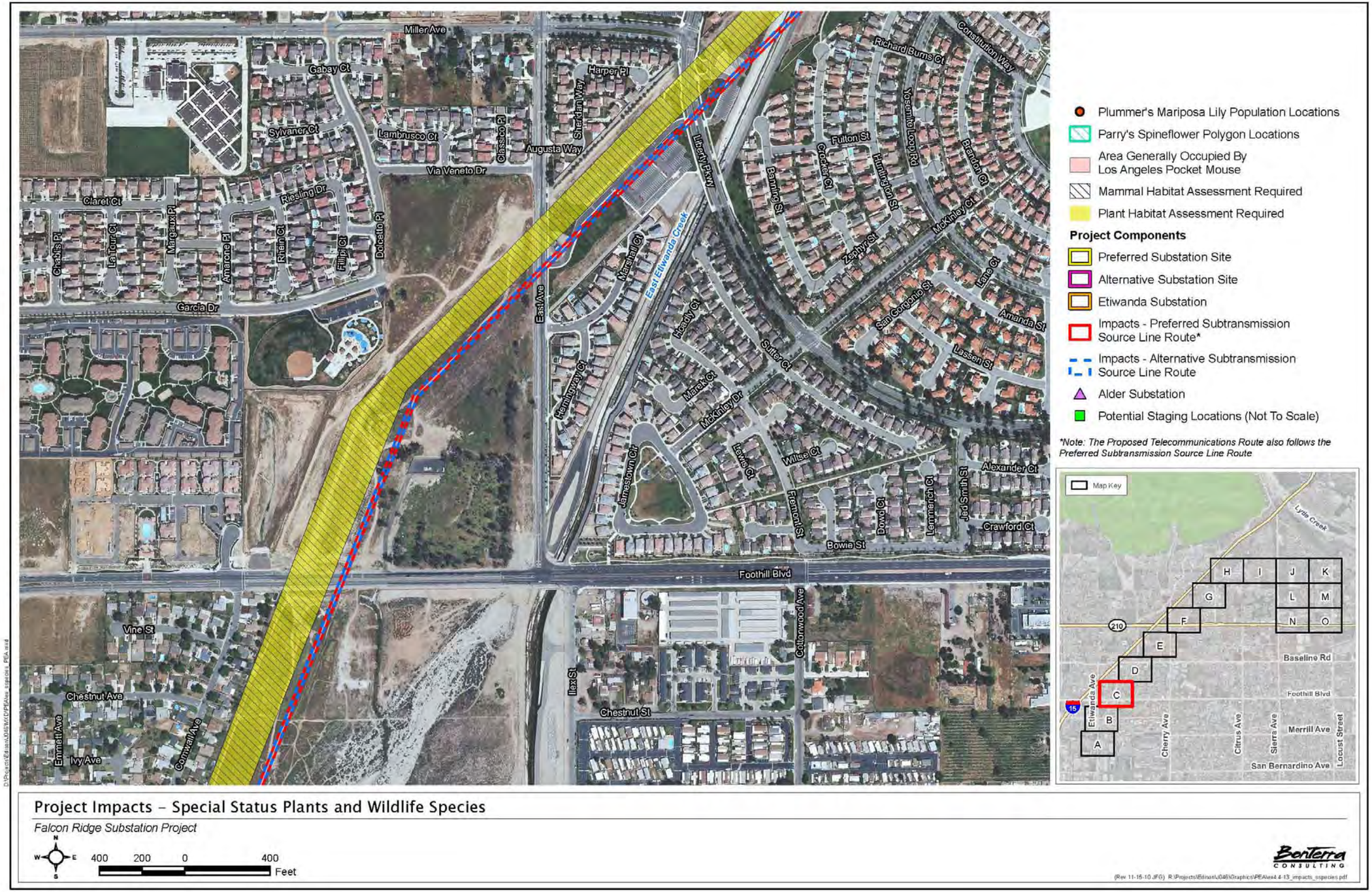
Project Impacts – Special Status Plants and Wildlife Species — Figure 4.4-13A

Falcon Ridge Substation Project

BonTerra CONSULTING

(Rev.11-15-10 JFG) R:\Projects\Edrcom\046\Graphics\PEA\ex4.4-13_impacts_sspecies.pdf


Ivy Ave
Arrow Rte
Etiwanda Ave
Arrow Blvd
Ilex St
Hickory Ave
Pecan Ave
East Etiwanda Creek
Whitram Ave
Bruce
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
Mammal Habitat Assessment Required
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Impacts - Preferred Subtransmission Source Line Route*
Impacts - Alternative Subtransmission Source Line Route
Alder Substation
Potential Staging Locations (Not To Scale)
*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route
Map Key
Lytle Creek
Baseline Rd
Foothill Blvd
Merrill Ave
San Bernardino Ave
Etiwanda Ave
Cherry Ave
Citrus Ave
Sierra Ave
Locust Street
210
15
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
Project Impacts – Special Status Plants and Wildlife Species
Falcon Ridge Substation Project
N
W
E
S
400 200 0 400
Feet
BonTerra CONSULTING
(Rev. 11-15-10 JFG) R:\Projects\Edison\J046\Graphics\PEA\fea4.4-13_impacts_especies.pdf


Miller Ave
Gabay Ct
Harper Pl
Sylvaner Ct
Lambrusco Ct
Classico Pl
Sheridan Way
Augusta Way
Via Veneto Dr
Claret Ct
Riesling Dr
Margaux Pl
Chablis Pl
Latour Ct
Amarone Pl
Rhein Ct
Fumé Ct
Dolcetto Pl
Garcia Dr
East Ave
Liberty Pkwy
East Etiwanda Creek
Marshall Ct
Richard Burns Ct
Constitution Way
Yosemite Loop Rd
Fulton St
Cooker Ct
Huntington St
Brandon Ct
Banning St
McKinley Ct
Zephyr St
Lane Ct
San Gorgonio St
Amanda St
Lassen St
Mosby Ct
Sutter Ct
Hemingway Ct
Marek Ct
McKinley Dr
Jamestown Cir
Lewis Ct
Milse Ct
Alexander Ct
Fremont St
Bowie St
Dowd Ct
Lemmerich Ct
Jed Smith St
Crawford Ct
Foothill Blvd
Vine St
Chestnut Ave
Emmett Ave
Ivy Ave
Cornwall Ave
Ilex St
Chestnut St
Cottonwood Ave
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
Mammal Habitat Assessment Required
Plant Habitat Assessment Required
Project Components
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Alternative Substation Site
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Impacts - Preferred Subtransmission Source Line Route*
Impacts - Alternative Subtransmission Source Line Route
Alder Substation
Potential Staging Locations (Not To Scale)
*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route
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Project Impacts – Special Status Plants and Wildlife Species
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Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
Mammal Habitat Assessment Required
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
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*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route
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Gettysburg St
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Wilderness Way
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Bear Creek Dr
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Ashland Ln
Smithfield Ct
Hatcher Pl
America Way
Las Palmas Dr
Santa Barbara Ct
Crockett Ct
Sharon Ct
Trinity St
Heritage Cir
Del Norte St
Arcata St
Killyhawk St
Bodega St
Big Sur St
Wake Ct
Walkway
Stinson Ct
Village Green Dr
Meade Ct
Slocum Pl
McClellan Ct
Grant Way
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East Etiwanda Creek
Harvard Ct
Cornell Ct
Stanford Ct
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Yale Ct
Auburn Ct
Oxford Ct
Oxford St
Cambridge Ct
Grand Ave
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Berkeley Ct
Dana Ct
Chrystal Ct
Yosemite Loop Rd
Bennington Ct
Pico Ct
Hancock Ct
Dodge Ct
Boston Ct
Lafayette Ct
Columbus Ct
Betsy Ross Ct
Gabrillo Ct
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La Salle Ct
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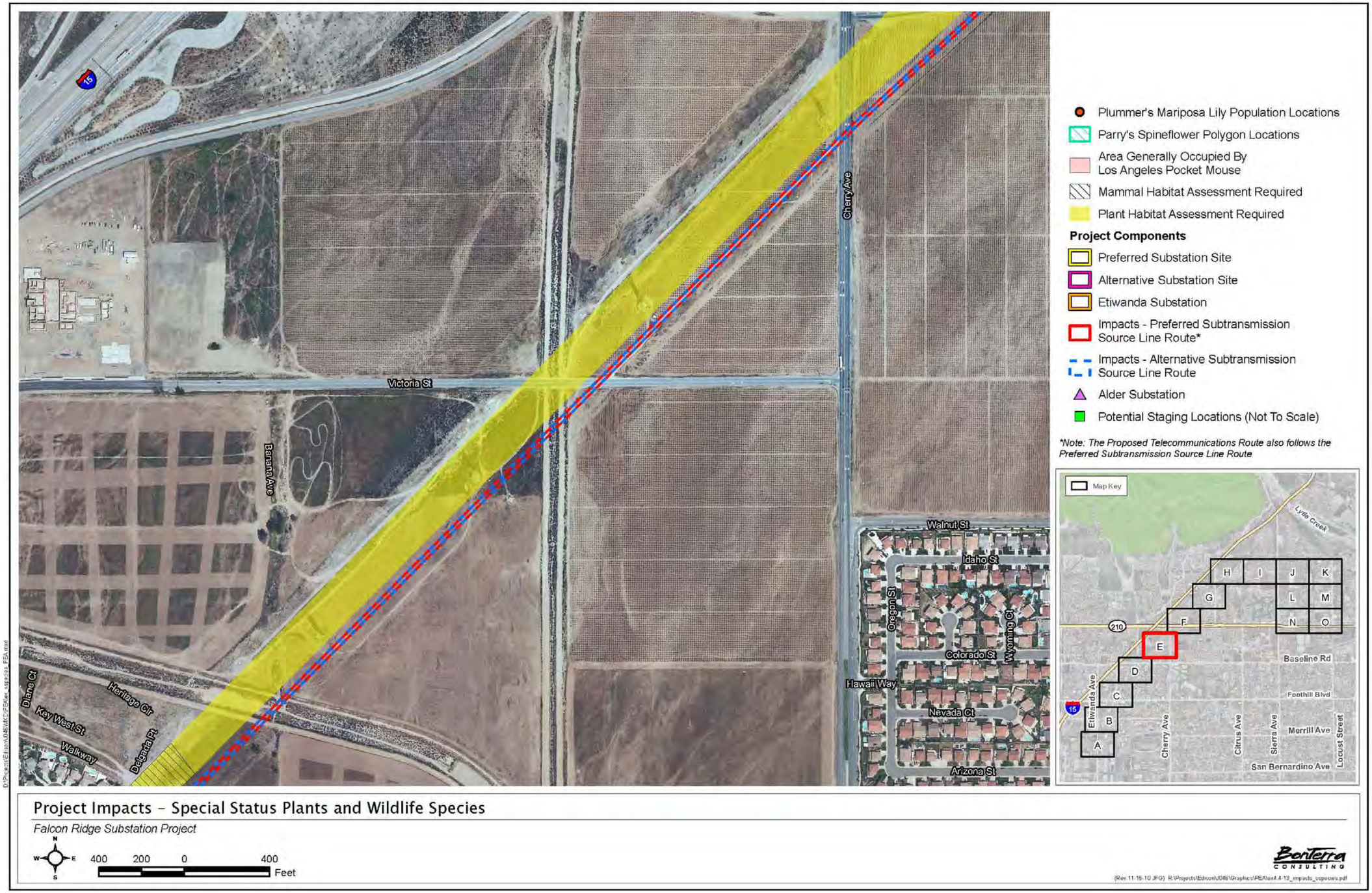
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Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
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Oregon St
Wyoming Ct
Colorado St
Hawaii Way
Nevada Ct
Arizona St
Diane Ct
Heritage Cir
Key West St
Walkway
Delgada Pl
Lytle Creek
Baseline Rd
Foothill Blvd
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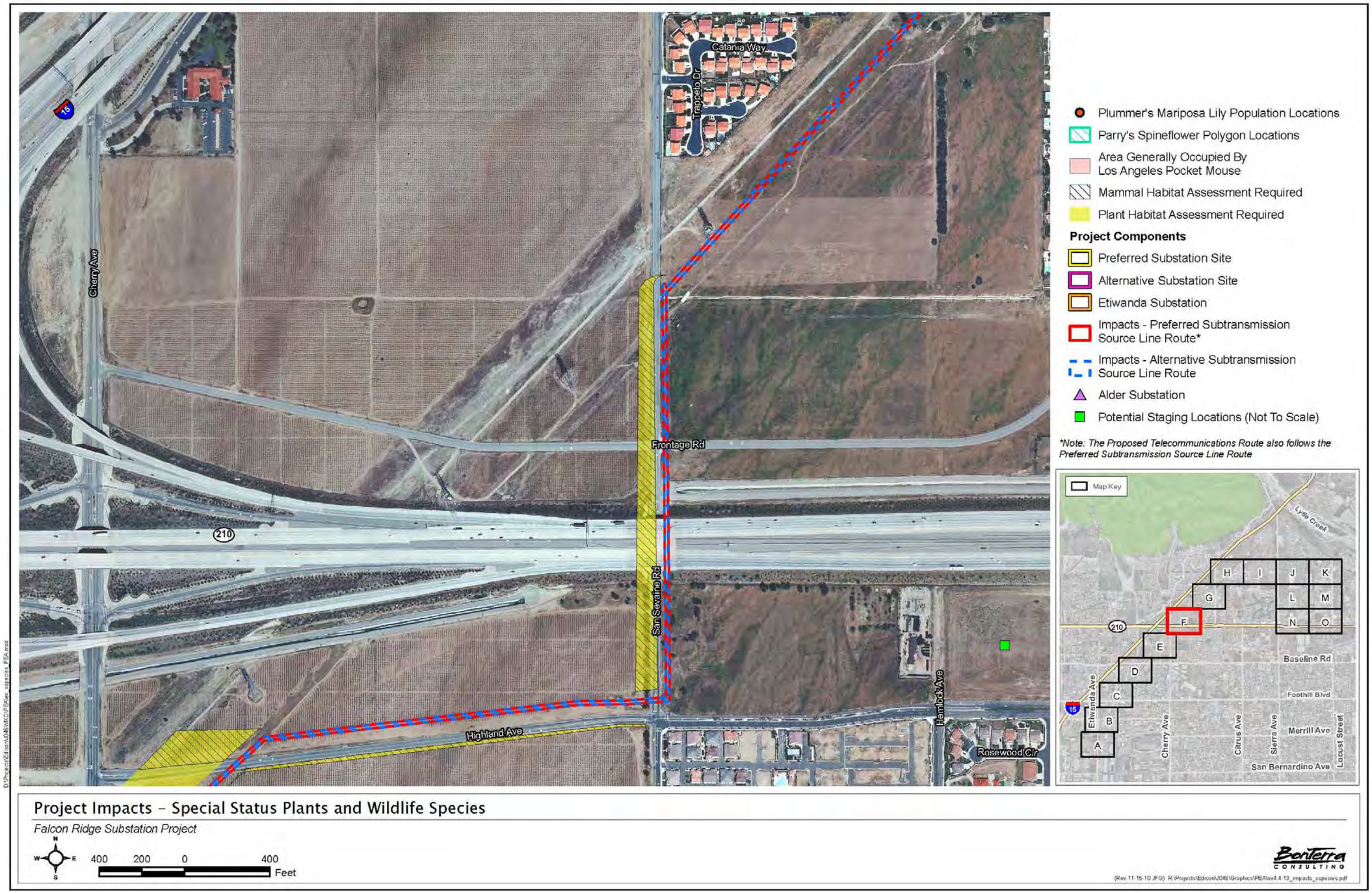
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Parry's Spineflower Polygon Locations
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Project Impacts – Special Status Plants and Wildlife Species

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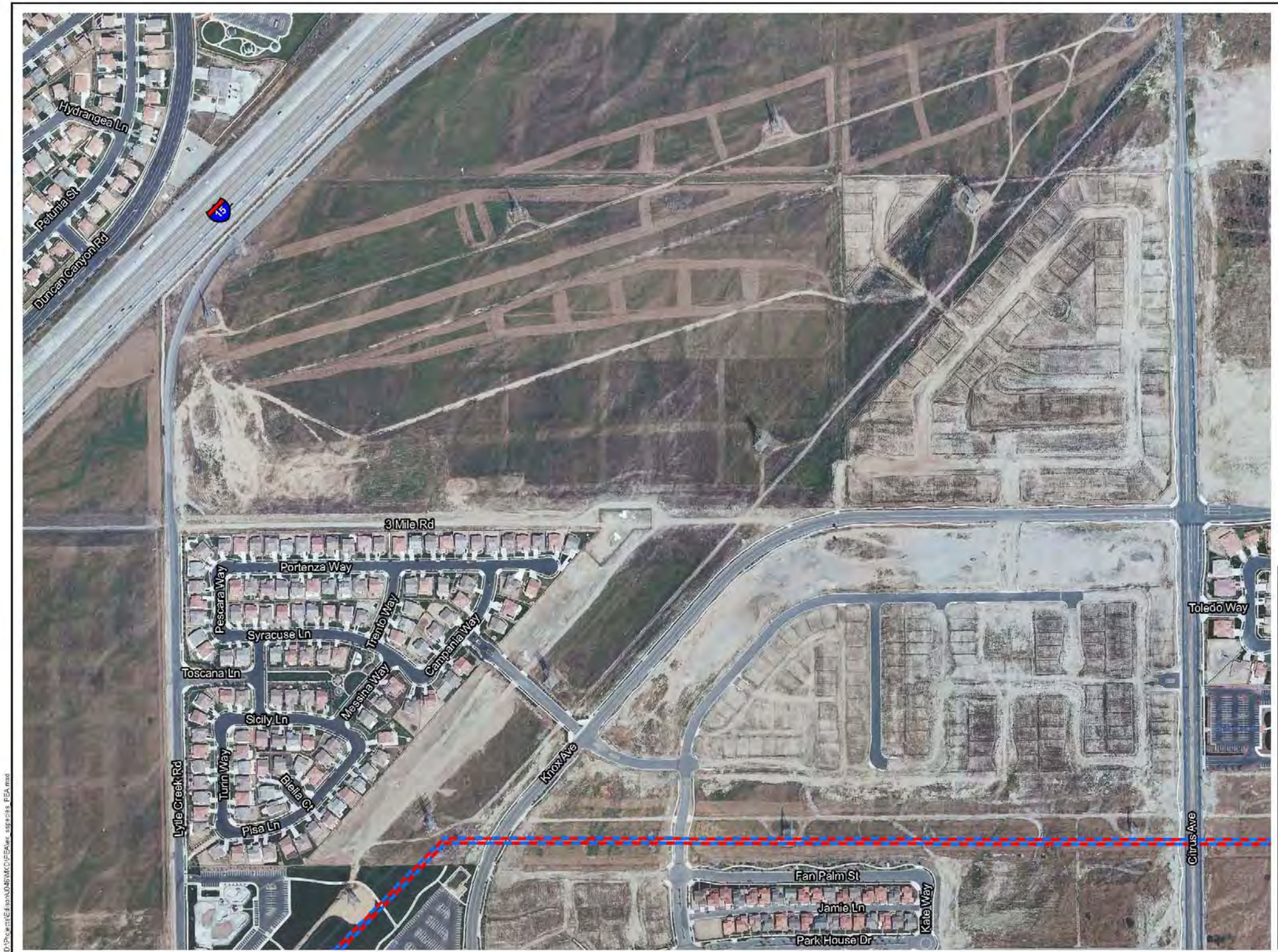
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Pescara Way
Syracuse Ln
Trento Way
Campania Way
Toscana Ln
Messina Way
Sicily Ln
Turin Way
Biella Ct
Pisa Ln
Lyle Creek Rd
Knox Ave
Toledo Way
Citrus Ave
Fan Palm St
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Kale Way
Park House Dr
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
Mammal Habitat Assessment Required
Plant Habitat Assessment Required
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Preferred Substation Site
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Impacts - Alternative Subtransmission Source Line Route
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Potential Staging Locations (Not To Scale)
*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route
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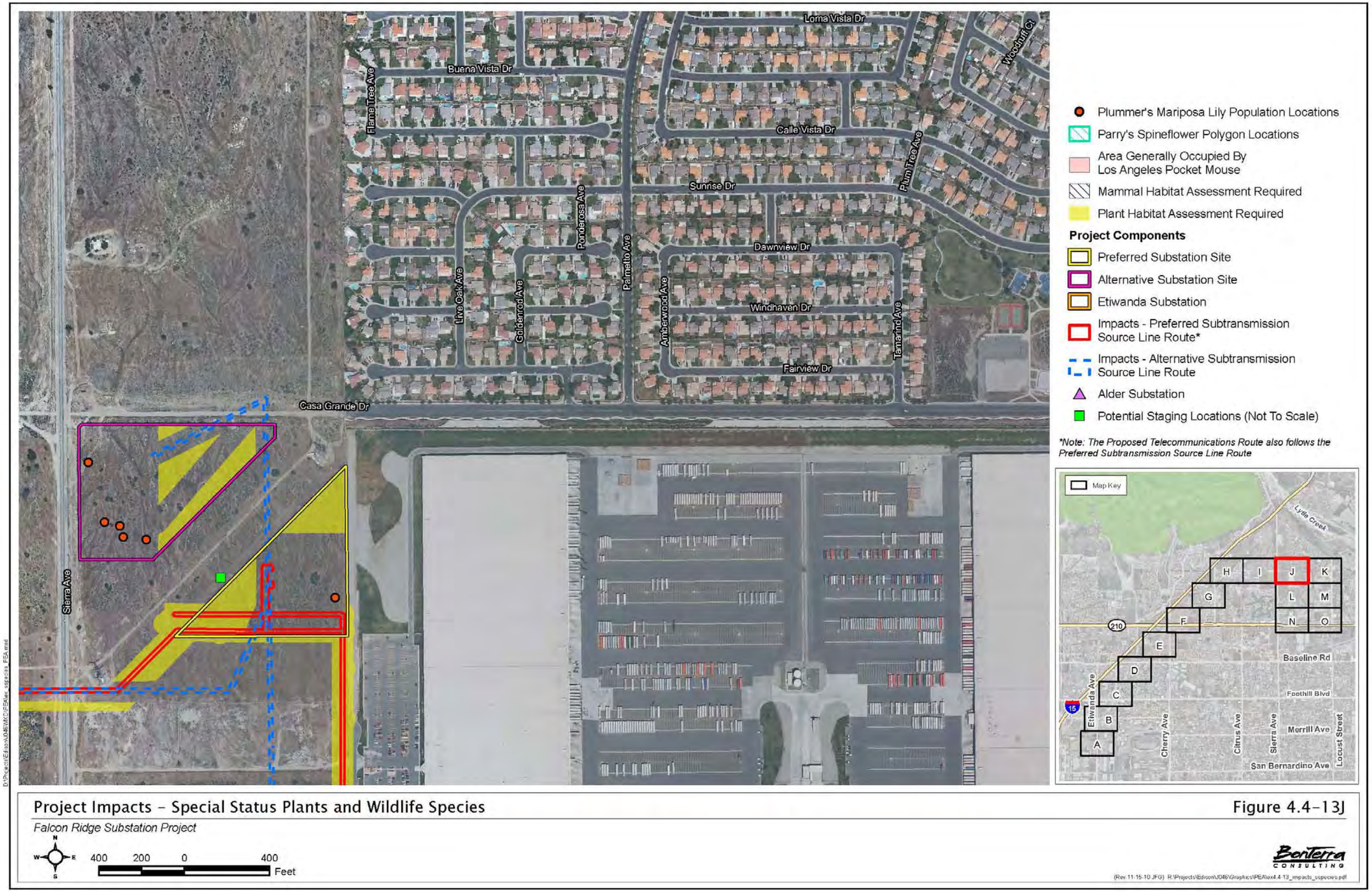
Project Impacts – Special Status Plants and Wildlife Species

Figure 4.4-13I

Falcon Ridge Substation Project



Project Impacts – Special Status Plants and Wildlife Species

Figure 4.4-13J

Falcon Ridge Substation Project

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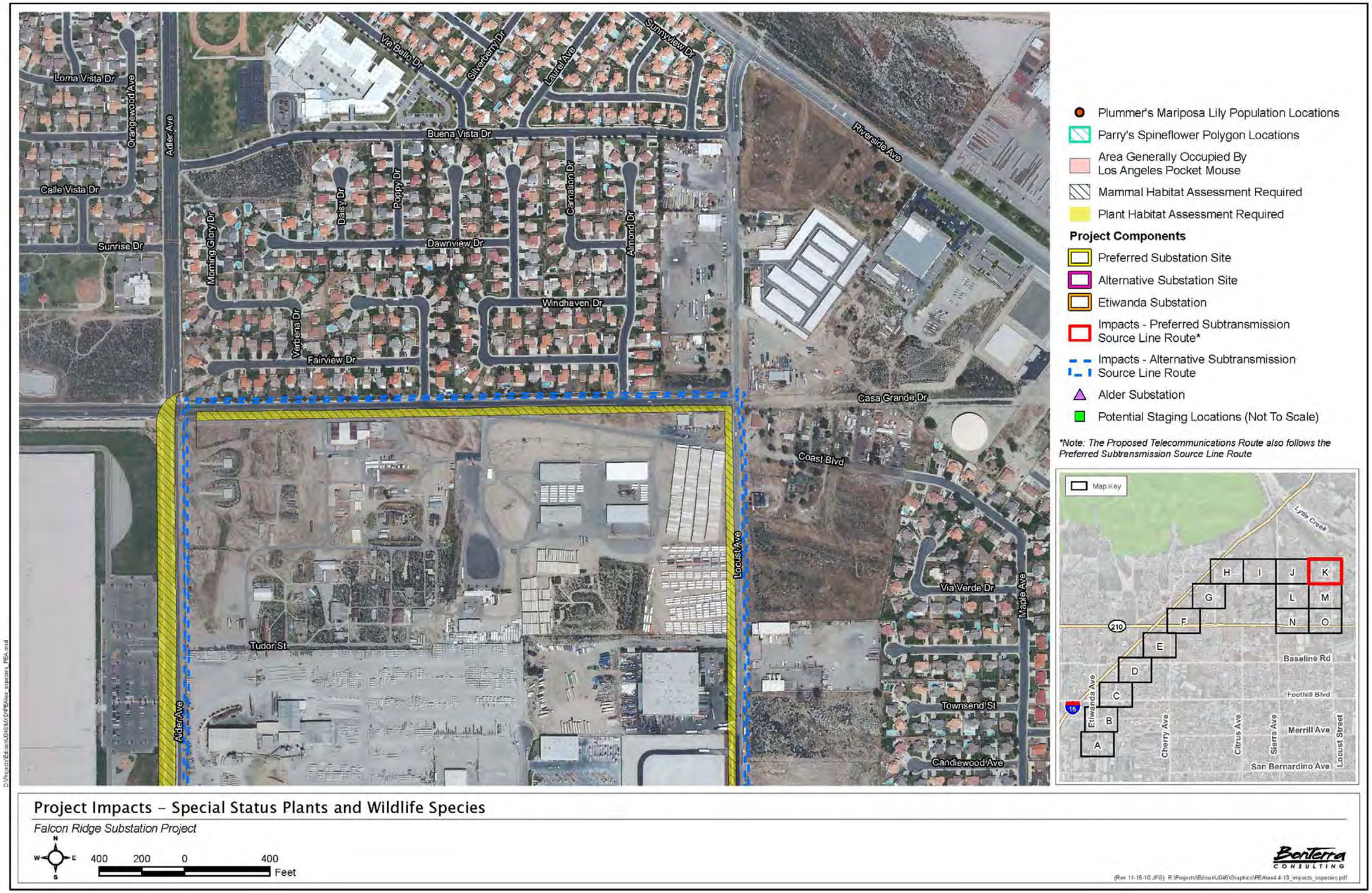
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Via Bella Dr
Silverberry Dr
Laurel Ave
Sunnyview Dr
Buena Vista Dr
Riverside Ave
Calle Vista Dr
Sunrise Dr
Morning Glory Dr
Daisy Dr
Poppy Dr
Carnation Dr
Almond Dr
Dawnview Dr
Windhaven Dr
Verbena Dr
Fairview Dr
Casa Grande Dr
Coast Blvd
Locust Ave
Via Verde Dr
Maple Ave
Tudor St
Alder Ave
Townsend St
Candlewood Ave
Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
Mammal Habitat Assessment Required
Plant Habitat Assessment Required
Project Components
Preferred Substation Site
Alternative Substation Site
Etiwanda Substation
Impacts - Preferred Subtransmission Source Line Route*
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Alder Substation
Potential Staging Locations (Not To Scale)
*Note: The Proposed Telecommunications Route also follows the Preferred Subtransmission Source Line Route
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Project Impacts – Special Status Plants and Wildlife Species
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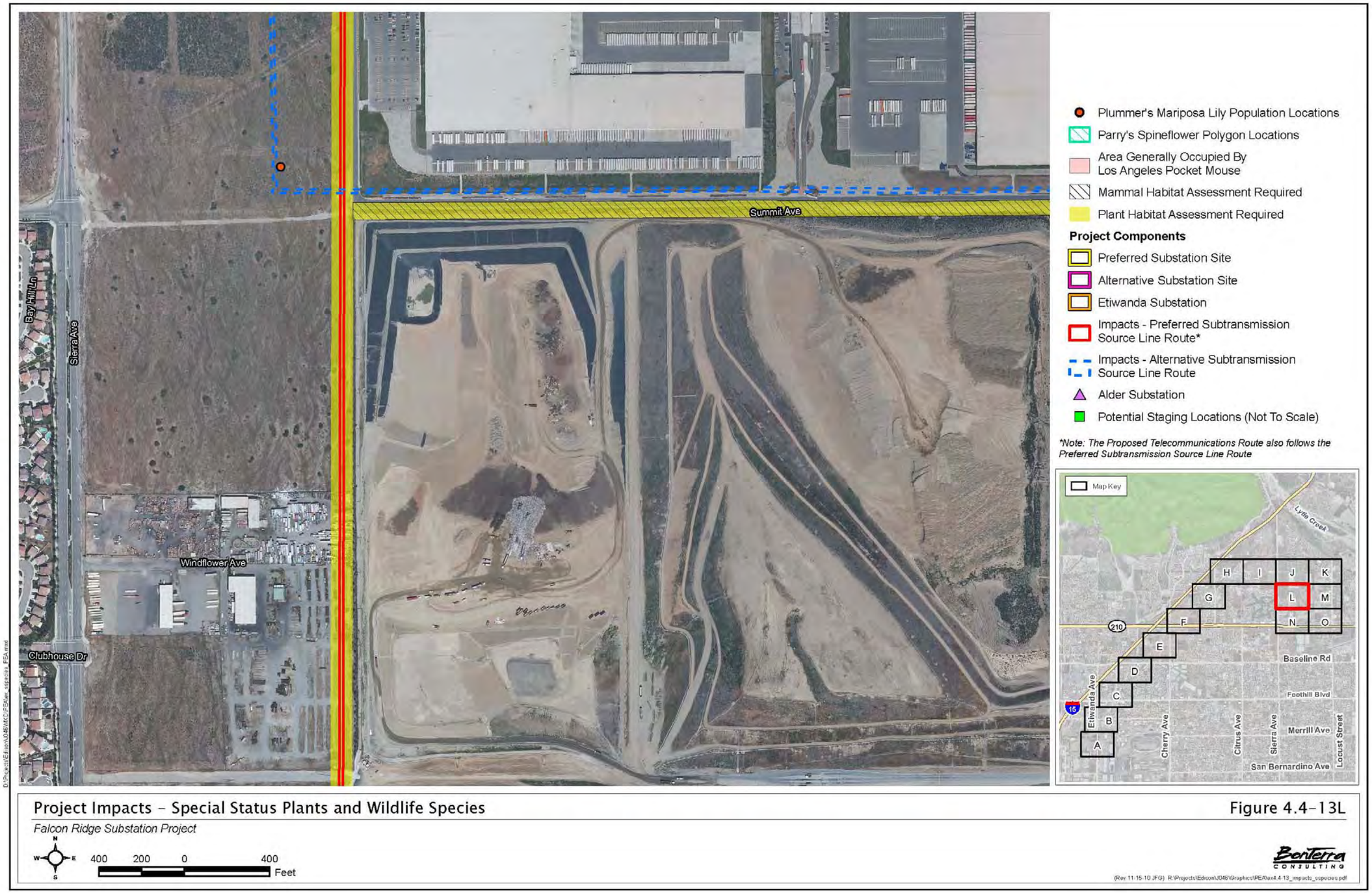
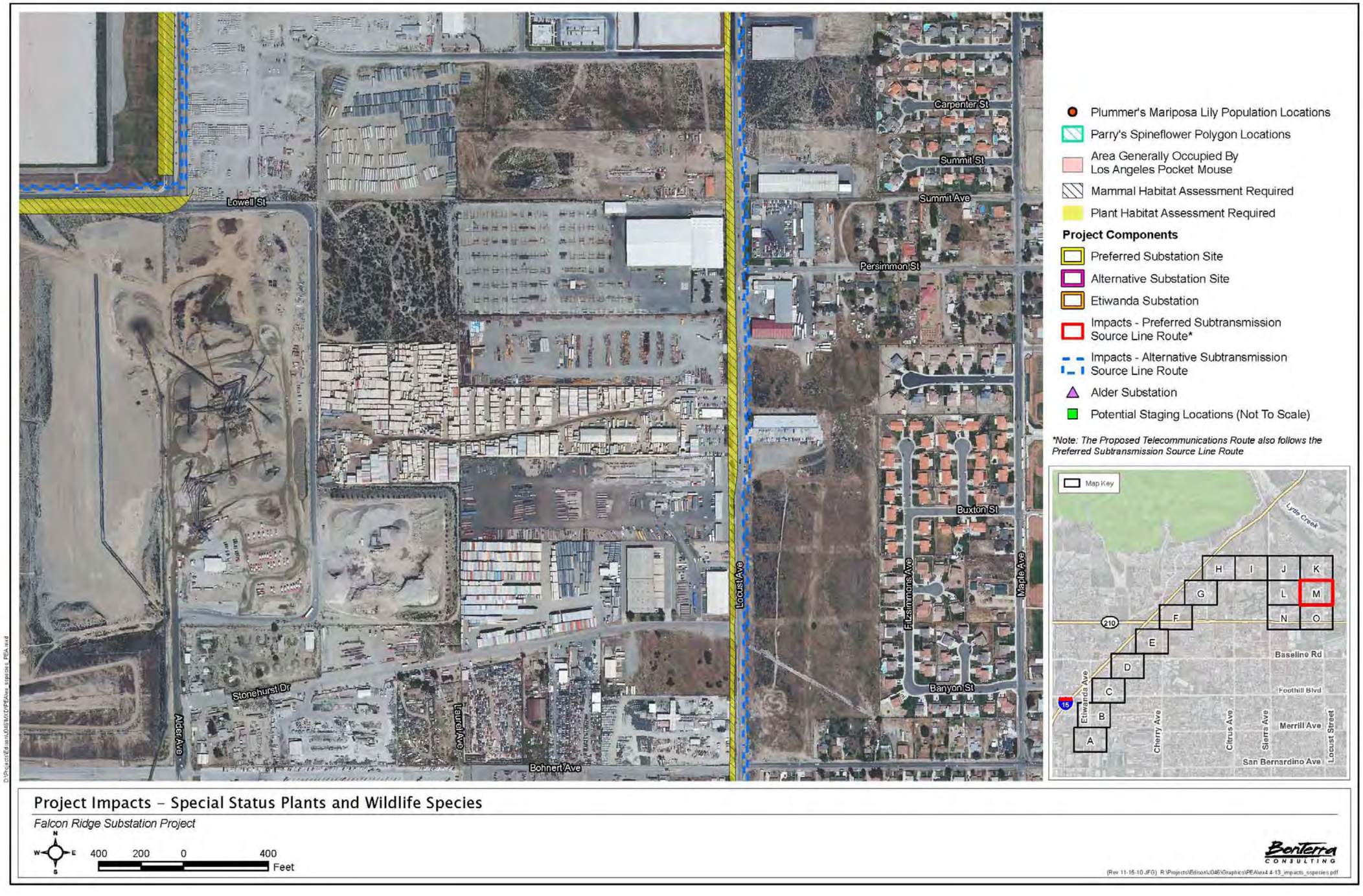


Project Impacts – Special Status Plants and Wildlife Species

Figure 4.4-13L

Falcon Ridge Substation Project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Fitzsimmons Ave
Locust Ave
Lowell St
Stonehurst Dr
Alder Ave
Laurel Ave
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Plummer's Mariposa Lily Population Locations
Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
Mammal Habitat Assessment Required
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Project Components
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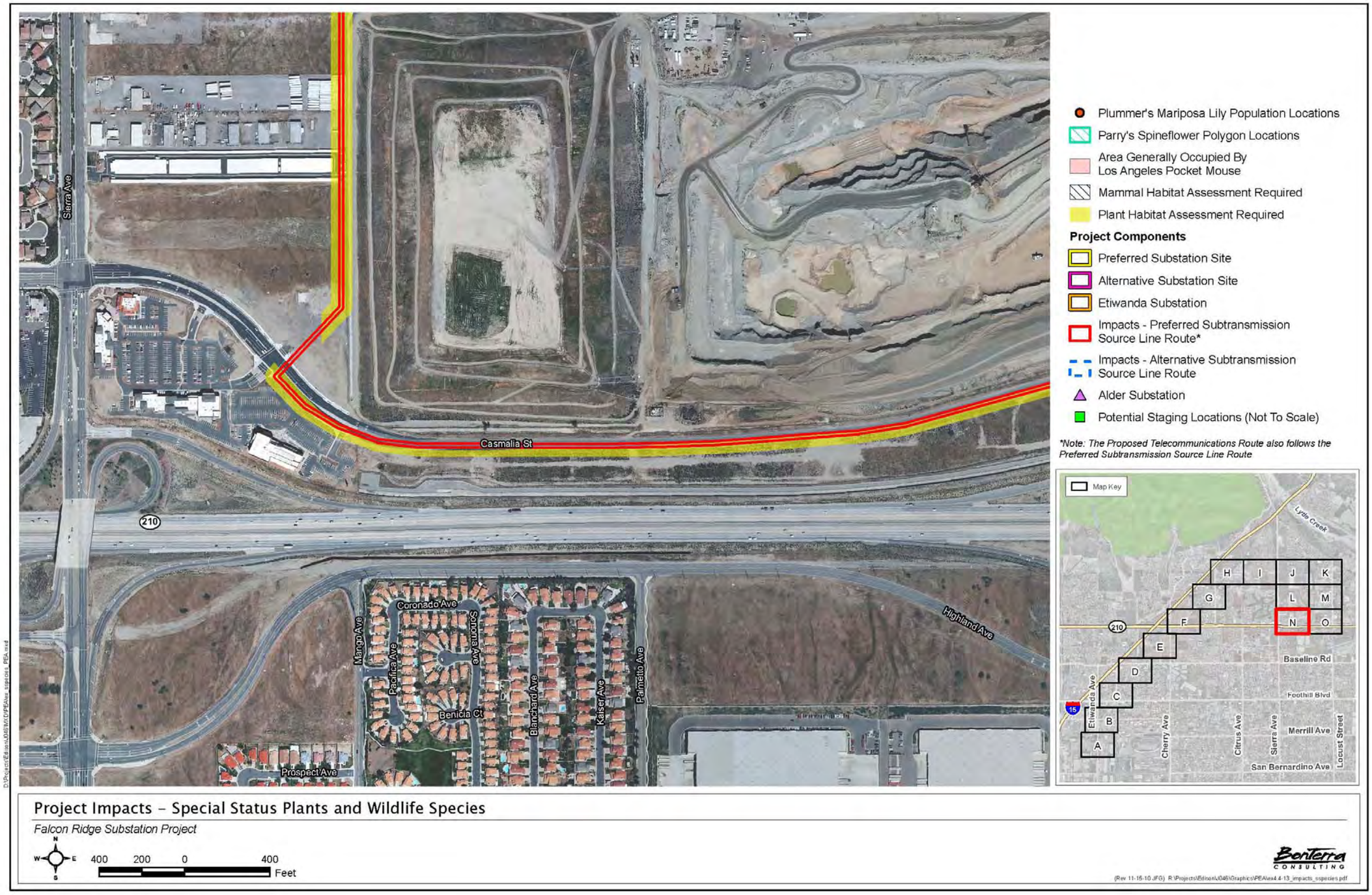
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Benicia Ct
Blanchard Ave
Kaiser Ave
Palmetto Ave
Highland Ave
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Parry's Spineflower Polygon Locations
Area Generally Occupied By Los Angeles Pocket Mouse
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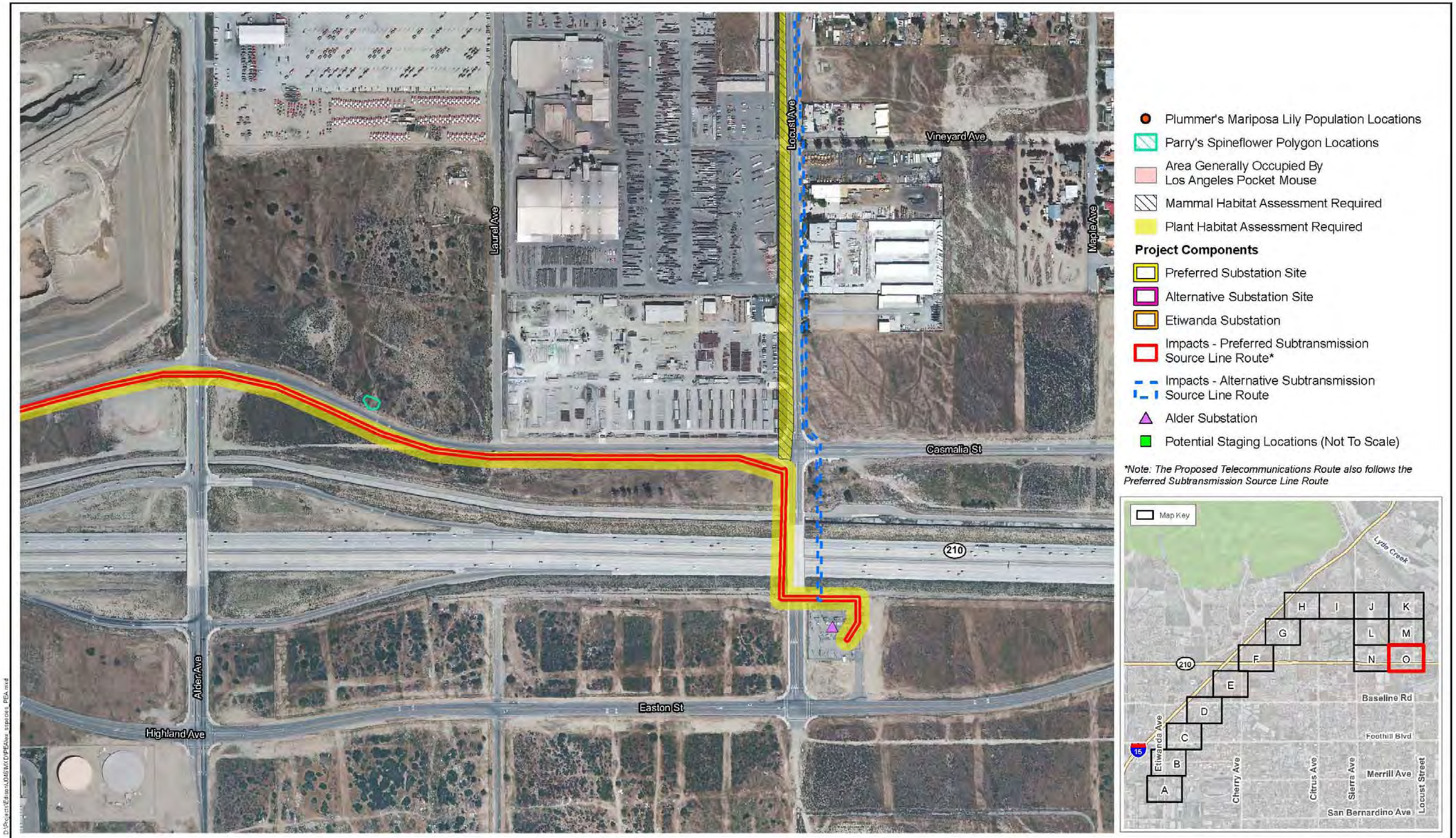

Project Impacts – Special Status Plants and Wildlife Species

Figure 4.4-130

Falcon Ridge Substation Project

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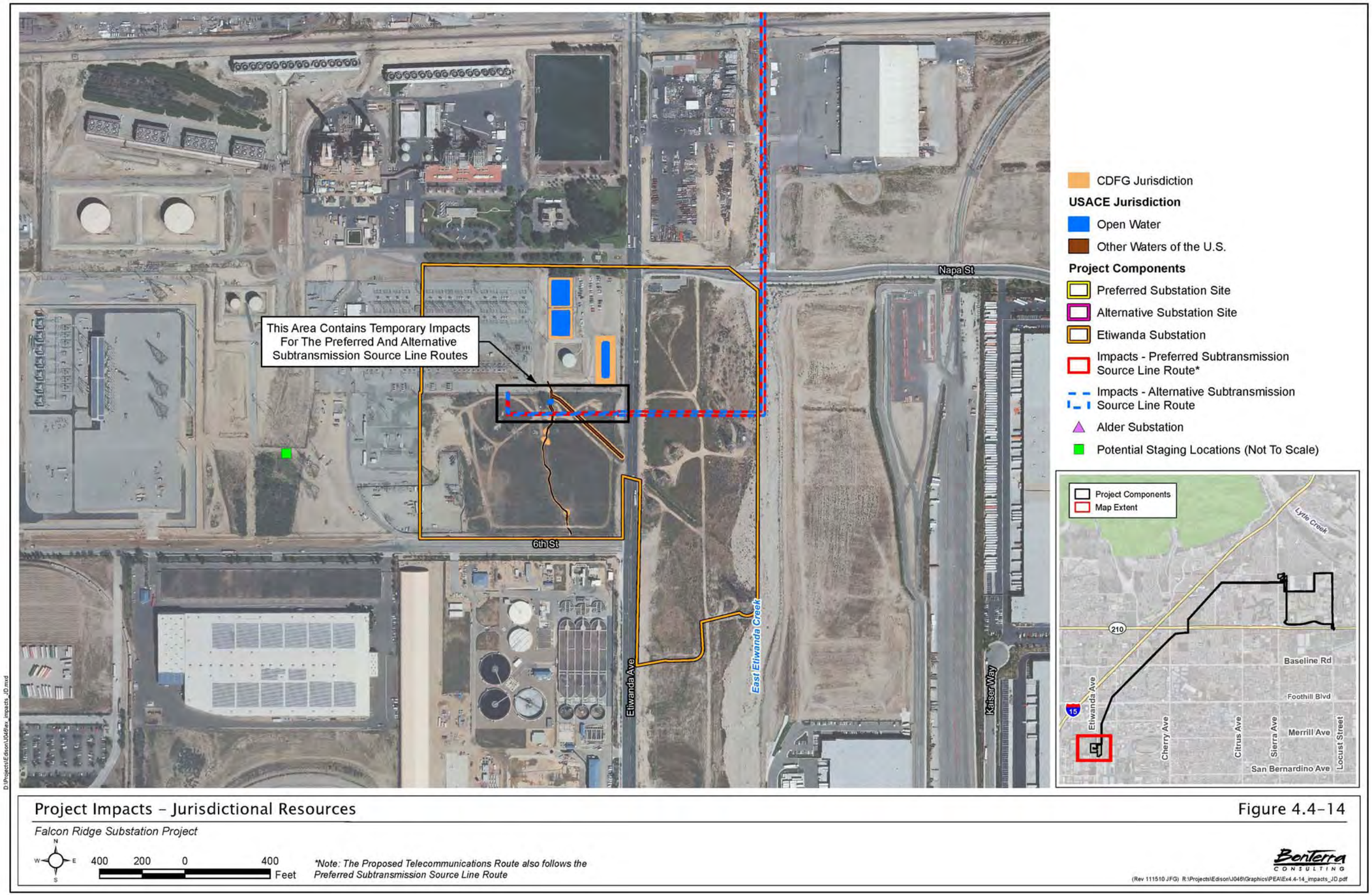

Project Impacts – Jurisdictional Resources — Figure 4.4-14

Falcon Ridge Substation Project

4.5 Cultural Resources

This section describes the cultural resources in the area of the Proposed Project. Potential impacts to cultural resources (i.e., archeological and historical resources) are discussed first, followed by a discussion of paleontological resources. The alternatives are also discussed.

4.5.1 Environmental Setting

The Proposed Project area is located in the southwestern portion of San Bernardino County at the base of the San Gabriel Mountains on the San Gabriel alluvial fans. The sediments covering the project area consist of unconsolidated sand and gravels transported by streams and runoff. The project area is mostly flat, with a slope of less than five degrees and is crisscrossed by shallow washes.

The vegetation of the project area consists of desert scrub and chaparral, including grasses, sage and manzanita. The fauna of the region includes deer, pronghorn, jackrabbits, rabbits, tortoises and numerous bird species. In recent history, deer and pronghorn have been driven from the area due to human activity. Local farming and other surface alteration activities have disrupted the natural vegetation, allowing scrub vegetation to invade.

Prehistoric Cultures

The approaches to establishing prehistoric frameworks in the region have changed throughout the last half-century. Within the project area, archaeologists defined a material complex dating from approximately 7,000 to 3,000 years BP[1] as the "Millingstone Horizon" (Wallace 1955). The Millingstone Horizon was later redefined as a cultural tradition, named the Encinitas Tradition (Warren 1968). The Encinitas Tradition is characterized by abundant metates (millingstones) and manos (handstones), crudely made core and flake tools, bone tools, shell ornaments, very few projectile points, and subsistence pattern based on collecting (plants, shellfish, etc.) (Sutton and Gardner 2010).

Archaeologists have continued to use different prehistoric frameworks in the region: some have adopted a generalized Encinitas Tradition without regional variations; some have continued to use "Millingstone Horizon," and some have used Middle Holocene to indicate this observed pattern (Sutton and Gardner 2010:1-2). For the purposes of the Proposed Project, the prehistory of the area is discussed using the Encinitas Tradition (including the regional variations).

[1] BP: Before Present

There are four regional patterns identified within the Encinitas Tradition (Sutton and Gardner 2010:8-25). These are (1) Topanga, in coastal Los Angeles and Orange counties, (2) La Jolla, in coastal San Diego County, (3) Greven Knoll, in inland San Bernardino, Riverside, Orange and Los Angeles counties, and (4) Pauma in inland San Diego County.

Approximately 3,500 years BP, the Encinitas Tradition was replaced by a new archaeological entity in the greater Los Angeles Basin, identified as the Del Rey Tradition. This new entity has been generally assigned to the Intermediate and Late time periods. The changes that initiated the beginning of the Intermediate Period included new settlement patterns, economic factors and different artifact types. Within the Del Rey Tradition are two regional patterns identified as Angeles and Island. The Del Rey Tradition represents the arrival, divergence and development of the Gabrieleno in southern California (Sutton in press).

Project Area Prehistoric Cultures

The latest cultural revisions for the project area define traits for time phases of the Greven Knoll pattern of the Encinitas Tradition applicable to inland San Bernardino, Riverside, Orange, and Los Angeles counties (Sutton and Gardner 2010; Table 4.5-1). This pattern is replaced in the project area by the Angeles pattern of the Del Rey Tradition later in time (Sutton in press).

Greven Knoll sites tend to be in valleys, such as the project area. These inland peoples did not switch from manos/metates to pestles/mortars like coastal peoples (c. 5,000 BP). This may reflect that the Greven Knoll population had a closer relationship with desert groups, rather than the coastal peoples who exploited acorns and required the use of mortars and pestles for their processing. The Greven Knoll toolkit is dominated by manos and metates throughout its 7,500 year extent. In Phase I other typical characteristics were pinto dart points for atlatls or spears, charmstones, cogged stones, absence of shell artifacts and flexed position burials. In Phase II, Elko dart points for atlatls or spears and core tools are observed along with increased indications of gathering. In Phase III, stone tools including scraper planes, choppers and hammerstones are added to the tool kit, yucca and seeds are staple foods, animals bones are heavily processed (broken and crushed to extract marrow) and burials are marked by cairns (Table 4.5-1).

The Angeles pattern is generally restricted to the mainland and appears to have been less technologically conservative and more ecologically diverse, with a largely terrestrial focus and greater emphases on hunting and nearshore fishing (Sutton in press).

Table 4.5-1 Cultural Chronology*

Phase	Dates (BP)	Material Culture	Other Traits
Greven Knoll I	8,500 to 4,000	Abundant manos and metates; Pinto dart points for atlatls or spears; charmstones, cogged stones and discoidals rare; no mortars or pestles; general absence of shell artifacts	No shellfish; hunting important; flexed inhumations; cremations rare
Greven Knoll II	4,000 to 3,000	Abundant manos and metates; Elko dart points for atlatls or spears; core tools; late discoidals; few mortars and pestles; general absence of shell artifacts	No shellfish; hunting and gathering important; flexed inhumations; cremations rare
Greven Knoll III (formerly Sayles complex)	3,000 to 1,000	Abundant manos and metates; Elko dart points for atlatls or spears; scraper planes, choppers, hammerstones; late discoidals; few mortars and pestles; general absence of shell artifacts	No shellfish; yucca and seeds as staples; hunting important but bones processed; flexed inhumations under cairns; cremations rare
Angeles IV	1,000 to 800	Cottonwood arrow points for arrows appear; *Olivella* cupped beads and *Mytilus* shell disks appear; some imported pottery appears; possible appearance of ceramic pipes	Changes in settlement pattern to fewer but larger permanent villages; flexed primary inhumations; cremations uncommon
Angeles V	800 to 450	Artifact abundance and size increases; steatite trade from islands increases; larger and more elaborate effigies	Development of mainland dialect of Gabrieleno; Settlement in open grasslands; exploitation of marine resources declined and use of small seeds increased; flexed primary inhumations; cremations uncommon
Angeles VI	450 to 150	Addition of locally made pottery; metal needle-drilled *Olivella* beads; addition of Euroamerican material culture (glass beads and metal tools)	Use of domesticated animals; flexed primary inhumations continue; some cremations

*Adapted from Sutton and Gardner 2010

The Angeles IV phase is marked by new material items including Cottonwood points for arrows, *Olivella* cupped beads and *Mytilus* shell disks, birdstones (zoomorphic effigies with magico-religious properties) and trade items from the Southwest including pottery. It appears that populations increased and that there was a change in the settlement pattern to fewer but larger permanent villages. The presence and utility of steatite vessels may have impeded the diffusion of pottery into the Los Angeles Basin. Smaller special-purpose sites continued to be used (Sutton in press).

Angeles V components contain more and larger steatite artifacts, including larger vessels, more elaborate effigies, and comals. Settlement locations shifted from woodland to open grasslands. The exploitation of marine resources seems to have declined and use of small seeds increased. Many Gabrielino inhumations contained grave goods while cremations did not (Sutton in press).

The Angeles VI phase reflects the ethnographic mainland Gabrielino of the post-contact (i.e., post-A.D. 1542) period. One of the first changes in Gabrielino culture after contact was undoubtedly population loss due to disease, coupled with resulting social and political disruption. Angeles VI material culture is essentially Angeles V augmented by a number of Euroamerican tools and materials, including glass beads and metal tools such as knives and needles (used in bead manufacture). The frequency of Euroamerican material culture increased through time until it constituted the vast majority of materials used. Locally produced brownware pottery appears along with metal needle-drilled *Olivella* disk beads. The ethnographic mainland Gabrielino subsistence system was based primarily on terrestrial hunting and gathering, although nearshore fish and shellfish played important roles. Sea mammals, especially whales (likely from beached carcasses), were prized. In addition, a number of European plant and animal domesticates were obtained and exploited (Sutton in press).

Ethnographic Setting

Early Native American peoples of the region were replaced approximately 1,000 years ago by the Tongva/Gabrieleno, who were semi-sedentary hunters and gatherers. The Tongva/Gabrieleno inhabited a vast territory stretching from Topanga Canyon in the northwest, to the base of Mount Wilson in the north, to San Bernardino in the east, Aliso Creek in the southeast and the Southern Channel Islands; in all an area of more than 2,500 square miles (Bean and Smith 1978; McCawley 1996). At the time of European contact, the tribe consisted of more than 5,000 people living in various settlements throughout the vicinity. Some of the villages were quite large and housed up to 150 people.

The Gabrielino are considered to have been one of the wealthiest tribes and to have great influence on groups they traded with (Krober 1976:621). Houses of the Gabrielino were domed, circular structures thatched with tule or similar materials (Bean and Smith 1978:542). The best known artifacts were made of steatite and were highly prized. Many common everyday items were decorated with inlaid shell or carvings reflecting an elaborately developed artisanship (Bean and Smith 1978:542).

The main food zones utilized were marine, woodland and grassland (Bean and Smith 1978). Plant foods were, by far, the greatest part of the traditional diet; with acorns being the most important single food source. Villages were located near water sources necessary for the leaching of acorns, which was a daily occurrence. Grass seeds were the next most abundant plant food used along with chia. Seeds were parched, ground, and cooked as mush in various combinations according to taste and availability. Greens and fruits were eaten raw or cooked or sometimes dried for storage. Bulbs, roots, and tubers were dug in the spring and summer and usually eaten fresh. Mushrooms and tree fungus

were prized as delicacies. Various teas were made from flowers, fruits, stems, and roots for medicinal cures as well as beverages (Bean and Smith 1978:538-540).

The principal game animals were deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, pronghorn, quail, dove, ducks, and other birds. Most predators were avoided as food, as were tree squirrels and most reptiles. Trout and other fish were caught in the streams, while salmon were available when they ran in the larger creeks. Marine foods were extensively used. Sea mammals, fish, and crustaceans were hunted and gathered from both the shoreline and the open ocean, using reed and dugout canoes. Shellfish were the most common resource, including abalone, turbans, mussels, clams, scallops, bubble shells, and others (Bean and Smith 1978:538-540).

The project area was not home to any known major villages. However, smaller villages and seasonal camps may have been present.

Historic Period

In 1769, Spanish settlers began to enter and colonize Alta California. These initial settlers introduced the missions, presidios, pueblos and ranchos. The project area consisted of lands under the control of the Mission San Gabriel between 1771 and 1933 and were likely used to graze cattle. After the Mexican government took control of California and secularized the missions, many lands were given to Mexican citizens to settle. The current project area, however, was not part of any Mexican land grant.

Soon after American control was established (1848), gold was discovered in California, which resulted in a tremendous influx of American and European settlers. The Homestead Act of 1862 also opened many areas, including the project area, to Euroamerican settlement.

While traders, explorers, and early wagon trains passed through the project area on historical trails, the project area was not well-populated until the 20th century. This was probably due to the lack of a natural water source and the difficulty in transporting water into the area. The settlement pattern is reflected in homestead claims and purchases from the Government Land Office which show that only seven individuals either purchased or claimed lands within the project area between 1850 and 1879, not including the State of California and the Southern Pacific Railroad Company (BLM GLO n.d.).

The Proposed and Alternate Substation sites and the portion of the Proposed Etiwanda Subtransmission Source Line Route north of Baseline Road are within the recorded boundaries of a historic settlement named Grapeland. In the 1880s, Grapeland had a school, stores, a post office and small ranches. Grapes were planted in this area as they thrive in the sandy soil without irrigation. As the town grew, the need for a regular water supply became urgent. In 1890 a petition was submitted to the Board of Supervisors of San Bernardino to allow the Grapeland Irrigation District to be organized into a territory (Vagle and Bittner n.d.:32). The irrigation district was formed following a unanimous vote. Unfortunately, all the plans implemented to bring water to the town eventually failed and the settlement “died of thirst” (Gist 1954:10-11). Remnants of Grapeland are still visible today, including grapevines, a few cabins and structures, some stone

foundations and pieces of the reservoirs and canals that were constructed during the attempt to irrigate.

The majority of the Proposed and Alternate Alder source lines are located in the City of Rialto. Rialto was one of three towns established in 1888 by the Semi-Tropic Land and Water Company, which was organized in 1887 by two Los Angeles bankers. Rialto was laid out along the Santa Fe railroad that linked San Bernardino to Los Angeles (Schuiling 1984:90). Rialto incorporated as a city in 1917.

The portion of the Proposed Etiwanda source line that extends south of Baseline Road was historically a community called Rosena, established in 1888 and located southwest of present-day Rialto. The area was named for the Southern Pacific Railroad's stop on the way to Los Angeles (Anicic Jr. 2005:7). Development was slow to non-existent, possibly due to the lack of a reliable water source combined with the crash of the land boom of the 1880s (Schuiling 1984:90). Rosena was intended to have been the settlement for the Semi-Tropic Land and Water Company.

In 1905, the land was bought by the Fontana Development Company, an irrigation system was installed and grain and citrus were planted. Approximately 25 families lived in the new town site (Anicic Jr. 2005:7). Although the area was subdivided, it remained largely agricultural until World War II, when the Kaiser Steel Mill was built (Schuiling 1984:102). The Kaiser Steel Mill, a portion of which was located within the project area, is no longer in existence but was designated a California Point of Historical Interest in 1975 while it was still in operation. The mill was constructed in 1944 in order to counteract a steel shortage that hampered efforts to build ships needed for the war effort. It was the largest steel mill on the West Coast.

The area encompassing the communities formerly known as Grapeland and Rosena became known as Fontana in 1913 (Anicic Jr. 2005:37). The name "Fontana" apparently came from a land deed with the name "Mr. Fountain," who sold land in Rosena to John Burdick in 1892 (Anicic Jr. 2005:31). Fontana incorporated in 1952.

Cultural Resources Records Search and Survey Methods and Results

Cultural Resources Records Search Methods and Results

A cultural resources records search was conducted by SCE personnel at the San Bernardino Archaeological Information Center, at the San Bernardino County Museum, on December 11, 2009 and June 1, 2010. The purpose of the records search was to determine the extent of previous cultural resources investigations within a one-half mile radius of the proposed project area, and to determine whether previously documented prehistoric or historic archaeological sites, isolated findings, architectural resources, cultural landscapes, or ethnic resources exist within the project area. Materials reviewed included survey and evaluation reports, archaeological site records, historic maps, the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), and the California State Historic Resources Inventory listings (HRI).

The records search shows that 52 previous cultural resource surveys have been conducted within one-half mile of the proposed project area, including 26 that encompass a portion of the project area.

A total of 38 historic resources were identified within one-half mile of the project area, in addition to eight historic resources that are located within the project area (Table 4.5-2). The historic resources located within the project area include two California Points of Historical Interest and one California Historical Landmark. No prehistoric cultural resources were identified within the project area or within one-half mile of the project area.

Native American Consultation

The Native American Heritage Commission (NAHC) conducted a search of the Sacred Lands File to identify cultural resources or areas of concern to Native Americans within the vicinity of the project area. The records search results did not indicate the presence of any known cultural resources within the vicinity of the project area, and included a list of Native American organizations and individuals who may have an interest in the project area. Letters were sent via certified mail on January 13, 2010 to seven individuals identified by the NAHC as being affiliated with the project vicinity. No replies have been received to date.

Pedestrian Survey Methods and Results

Pedestrian surveys were conducted for the project area by Cogstone Resource Management, Inc. (Cogstone) from June 7 to June 10, 2010 and on August 10, 2010. The majority of the project area was surveyed in June; the Proposed Alder Subtransmission Source Line Route and a small portion of the Proposed Etiwanda Subtransmission Source Line Route were surveyed in August when permission to enter private property was obtained.

The pedestrian survey consisted of archaeologists walking in parallel transects, spaced at approximately 15 meters, wherever possible, while closely inspecting the ground surface. Overall, ground visibility ranged from poor to fair (0-70%). Small portions of the project area were obscured by vegetation and hardscaping, therefore, the majority of the ground visibility ranged between 30-50% throughout the project area.

During the pedestrian survey, four of the previously identified historic resources were relocated (P-36-002910, P-36-011510, P-36-015497, and P-36-020137). The remaining four previously identified historic resources could not be relocated (P-36-004131, P-36-006901, P-36-008696, and P-36-011511). One new historic resource (P-36-21495) was identified during the pedestrian survey.

Table 4.5-2 Previously Identified Cultural Resources Located within Project Area.

Site Number	Site Type	Project Segment	Comments
P-36-002910 (CA-SBR-2910H)	Historic Road	Proposed Etiwanda Subtransmission Source Line Route	Old National Trails Road; California Historical Landmark
P-36-004131 (CA-SBR-4131H)	Historic Steel Mill	Proposed Etiwanda Subtransmission Source Line Route	Kaiser Steel Mill; California Point of Historical Interest; No longer in existence
P-36-006901 (CA-SBR-6901)	Historic Irrigation Ditch	Proposed Etiwanda Subtransmission Source Line Route	No longer in existence in project area
P-36-008696 (CA-SBR-8696)	Historic Military Complex	Alternate Alder Subtransmission Source Line Route	Rialto Military Munitions Bunker; No longer extant in project area
P-36-011510 (CA-SBR-11510)	Historic Road	Proposed Etiwanda Subtransmission Source Line Route	Dirt Road; Not visible in portions of project area
P-36-011511 (CA-SBR-11511)	Historic Road	Proposed Etiwanda Subtransmission Source Line Route	Dirt Road; No longer in existence in the project area
P-36-015497	Historic Road	Proposed Etiwanda Subtransmission Source Line Route	Baseline Road; California Point of Historical Interest
P-36-020137	Historic Railroad	Proposed Etiwanda Subtransmission Source Line Route	Pacific Electric San Bernardino Line/Pacific-Electric Southern Pacific Railroad Alignment

Proposed Substation Site

P-36-021495 – P-36-021495 (CA-SBR-13798H) is a newly identified site located in the southwestern corner of the SCE-owned parcel for the Proposed Substation site. The site consists of a collection of landscaping and construction features associated with the 19th century community of Grapeland. Previous work in this area found remnants of a house, horse trough and other structures made of the river rock abundant in the area (Dietler and Gust 2002). Bureau of Land Management Government Land Office data show that in 1896, a homestead claim for this area was granted to Elmer E. Scott (BLM GLO n.d.).

A total of six features were observed within a 45 meter (north/south) x 33 meter (east/west) area. Feature 1 consists of a cobble-lined depression, approximately 88 inches in diameter and 17 inches deep. Feature 2 is a cobble pathway, measuring 3 cobbles wide, which connects Features 1 and 3. Feature 3 consists of a standing planter constructed from cobbles and broken concrete slabs, measuring approximately 25 inches tall and 47 inches wide at the base. Feature 4 consists of a linear planter constructed from cobbles, measuring approximately 13 feet long and three feet wide. Feature 5 is a cobble pad with circular planters and a small wooden fence bordering the feature's southwest side.

Feature 6 is a fire pit comprised of a circle of broken concrete slabs. The site also contains a scattering of construction debris such as broken concrete slabs and bricks, milled lumber and two concentrations of broken glass. The broken glass did not contain any diagnostic marks, and no other diagnostic artifacts were observed at the site. Therefore, the site could not be dated. The site was formally recorded and a site record was submitted to the San Bernardino Archaeological Information Center.

Proposed Etiwanda Subtransmission Source Line Route

P-36-002910 – P-36-002910 (CA-SBR-2910H) consists of the Old National Trails Road, which is designated as a California Historical Landmark (CHL-781). The road, along with an associated trash scatter, was initially recorded in 1977, where it was described as a very early trans-United States gravel auto route with associated debris along the roadside. The road has since been updated eight times between 1978 and 2000. The western portion of the Old National Trails Road was built between 1911 and 1914; the route it follows is considered an ancient crossing used by prehistoric peoples. The portion of the Old National Trails Road within the proposed project area is also U.S. Route 66. The city of Fontana has been working on city beautification projects which include a monument in the median of Foothill Boulevard and a large, white "66" painted over herringbone brickwork in the road. The road currently consists of between four and six lanes, with a landscaped median and heavy traffic.

P-36-004131 – P-36-004131 (CA-SBR-4131H) is identified as the Kaiser Steel Mill. The Kaiser Steel site was originally a hog ranch operated by the Fontana Farms Company. After the Japanese attack on Pearl Harbor in 1941, the United States needed to increase their production of ships, planes, and armaments. The Kaiser Steel Mill was established by Henry J. Kaiser and began operations on December 30, 1942 to help meet the demands of World War II. Its location in Fontana was designed to protect it from a coastal attack during the war. After the war, the plant was modernized with new additions as recently as the 1980s (Center n.d.). It became one of the largest steel producers west of the Mississippi and was Fontana's primary source of jobs and revenue (State of CA 2005).

In 1983 Kaiser Steel Corporation went bankrupt. The mill was shut down and the land remained abandoned for ten years. A portion of the plant was bought by a company from China and in 1993 a Chinese crew spent two years disassembling the 22 story steel plant #2 which was shipped to China where it was reassembled. Portions of the old site remain and other portions have been redeveloped. The California Speedway was developed on the northern portion of the former site in 1997. Part of the steel plant is still producing steel and is operated by California Steel Industries (Center n.d.). California Steel is rolling imported steel slabs for use in construction, shipbuilding, transmission pipes and dozens of other products. It is operating the finishing facilities at an annual rate of 1 million short tons of steel, about 40% of the plant's capacity (Walter 1985). Other industrial uses for old portions of the Kaiser Steel plant include manufacturers and extensive metal recycling facilities.

The portion of the old Kaiser property crossed by the Proposed Etiwanda Subtransmission Source Line Route is currently occupied by residences and business and there are non industrial uses present.

The Kaiser Steel Plant was designated a California Point of Historical Interest in 1975 (CPHI-71) and was still operating until the 1980s. Site P-36-004131 no longer exists as recorded. However, the California Steel facilities are the remnant Kaiser Steel facilities.

P-36-006901 – P-36-006901 (CA-SBR-6901) consists of an early 20th century irrigation ditch, located at the base of the San Bernardino Mountains. Within the project area, the ditch runs east to west, adjacent to and north of Summit Avenue. The ditch was formally recorded in 1991, and was described as one-mile long, trapezoidal in cross-section and lined with concrete. During the pedestrian survey, the ditch was found to be no longer in existence within the proposed project area. The Proposed Project crosses the former site north of Summit Avenue. Summit Avenue has been expanded to four lanes since the site was recorded, and the area has undergone substantial development along portions of the road.

P-36-011510 – P-36-011510 (CA-SBR-11510) was recorded in 2002, and was described as a dirt track running northeast on the north side of Summit Avenue, crossing the power lines 1,800 feet west of Sierra Avenue. At the time of recordation, the road was considered to be in fair condition and was lined on either side by local field stones. During the pedestrian survey, only the portion of the road located south of the existing transmission lines was visible. Remnants of the road no longer exist to the north of the existing transmission line.

P-36-011511 – P-36-011511 (CA-SBR-11511) is identified as a dirt road, dating to as early as 1901. The road, which was associated with the Summit Avenue Homestead, was lined with rocks and may have been abandoned when Summit Avenue was extended east to Sierra Avenue in the 1930s. The road is located south of the existing transmission line, approximately 800 feet west of Sierra Avenue, running northeast to southwest. No remnants of the road were identified during the pedestrian survey along the proposed project area.

P-36-015497 – P-36-015497 consists of Baseline Road, which is identified as a California Point of Historical Interest. Baseline Road was constructed in 1853, and runs west from Highland in the San Bernardino Valley to Azusa in Los Angeles County. The road was used as the basis for land titles and joined the San Bernardino area with the foothills of the San Gabriel Mountains. During the pedestrian survey, the northern portion of the road within the project area was followed west. The road contains between four and six lanes with a landscaped median.

P-36-020137 – P-36-020137 consists of the Pacific Electric San Bernardino Line/Pacific Electric-Southern Pacific Railroad Alignment. This segment of the railroad alignment was a part of the line that opened in 1914, linking Upland to San Bernardino. All railroad-related material was removed from this alignment by 2006. The portion of the

alignment located within the project area contains a shallow, earthen berm that once held the tracks.

Proposed Alder Subtransmission Source Line Route

No cultural resources were identified in the Proposed Alder Subtransmission Source Line Route.

Alternative Substation Site

No cultural resources were identified in the Alternative Substation site.

Alternative Alder Subtransmission Source Line Route

P-36-008696 – P-36-008696 (CA-SBR-8696) is identified as the Rialto Ammunition Storage Point (RASP). The Rialto Military Munitions Bunker Complex is referred to in local documents as the RASP and occupied approximately 2,833 acres during WWII (SAI 2004). Shortly after the United State's entry into WWII, the complex was built on an existing airfield to the north of Rialto. It was composed of 20 earthen covered ammunition storage bunkers which held chemical and conventional ammunition. Its purpose was to temporarily store munitions until they were ready to be transported to the ships. Its location away from the coast was to protect against possible Japanese naval attacks. Around 1944, the U.S. Army constructed a railcar holding yard to the north of the bunker complex. There were 40 bermed "berthing stations" constructed on 8 rail sidings at this location (SAI 2004). The purpose of the earthen berms was to direct explosions upward and away from other bunkers and adjacent tracks. There was a total of 23.5 miles of track within the depot (Adams 2010). The RASP railroad spurs were connected to an industrial spur of the Santa Fe railroad in Rialto.

East of the storage area were an administration building, kitchen, barracks, vehicle storage and maintenance building, shops, fire station, gas station, shelters, sewage plant, and a water supply (Adams 2010). The army also leased approximately 2,000 acres for crops and grazing (Adams 2010). The RASP was actively used from November 16, 1942 until September 1945 and the Department of Defense eventually left the property in 1946 (Adams 2010).

In 1947 Edward F. Schulz purchased most of the RASP munitions bunker area. The land was leased to individuals and companies that used it for storage, manufacturing, or testing of explosive materials. In 1994 the property was sold to the County of San Bernardino for the expansion of the Mid-Valley Sanitary Landfill. Most of the bunker complex was demolished in 1999 (SAI 2004).

When recorded in 1997 it consisted of explosives bunkers, bermed berthing facilities for munitions trains and rail spurs, building foundations, telephone lines and a network of both paved and unpaved roads. An update to the site record in 2006 noted four remnant features of the site complex and noted that these remnants lack integrity and have a loss of association to surrounding and related military installations. The four features included

an earthen-covered, U-shaped concrete bunker, a brick magazine storage structure, a portion of large, earthen berm and a segment of historic, paved road.

The Alternative Alder Subtransmission Source Line Route runs through the center of the site E-W and then north along the eastern boundary. The current survey found no remnants of the installation. Modern uses of the site include a Retail Distribution Center that takes up the entire north half of the site. The southern half is partially the Mid-Valley Sanitary Landfill along with cement fabricators and pipe makers.

4.5.2 Regulatory Setting

The CPUC is tasked with compliance of all provisions in CEQA and the state CEQA Guidelines that concern cultural resources (CEQA Section 21803.2, 21084.1 and Guidelines 15064.5) as explained below.

Cultural resources as defined in CEQA include prehistoric and historic era archaeological sites, districts, and objects; historic buildings, structures, objects and districts; and traditional/cultural sites or the locations of important historic events. CEQA Guidelines Section 15064.5 states that a project may have a significant environmental effect if it causes a substantial adverse change in the significance of a historic resource. Additionally, the Lead Agency must consider properties eligible for listing on the California Register of Historical Resources (CRHR) or that are defined as a unique archaeological resource in Public Resources Code Section 21083.2.

4.5.3 Significance Criteria

The significance criteria for assessing the impacts to cultural resources come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5
- Cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5
- Disturb any human remains, including those interred outside of formal cemeteries

State regulations affecting cultural resources include Public Resources Code Sections 21083.2 and 21084.1, and CEQA Guidelines Section 15064.5, and Appendix G. CEQA requires the lead agency to carefully consider the effects a project may have if it causes a substantial adverse change in the significance of a historic or archeological resource.

California Register of Historical Resources

Cultural resources include archaeological and historic objects, sites and districts, historic buildings and structures, and sites and resources of concern to local Native Americans and other ethnic groups. Cultural resources that meet the criteria of eligibility to the

California Register of Historical Resources (CRHR) are termed "historic resources." Archaeological resources that do not meet CRHR criteria also may be evaluated as "unique;" impacts to such resources could be considered significant, as described below.

A site meets the criteria for inclusion on the CRHR if:

A. It is associated with events that have made a significant contribution to the broad patterns of California's History and Cultural Heritage

B. It is associated with the life or lives of a person or people important to California's past

C. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

D. It has yielded, or may be likely to yield, information important to prehistory or history

A resource eligible for the CRHR must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register of Historic Places (NRHP), but it may still be eligible for listing in the California Register.

The CRHR automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register
- California Registered Historical Landmarks from No. 770 onward
- Those California Points of Historical Interest that have been evaluated by the Office of Historic Preservation (OHP) and have been recommended to the State Historical Commission for inclusion on the California Register

Other resources that may be nominated to the CRHR include:

- Historical resources with a significance rating of Category 3 through 5
- Individual historical resources
- Historical resources contributing to historic districts
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone

Impacts to "unique archaeological resources" also are considered under CEQA, as described under PRC 21083.2. A unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

- Contains information needed to answer important scientific questions and there is a demonstrable public interest in that information
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person

A non-unique resource is one that does not fit the above criteria.

4.5.4 Impact Analysis

This cultural resource impact analysis is adapted from the technical report, "Phase I Cultural Resources Assessment Report for the Falcon Ridge Substation Project in the Cities of Rialto and Fontana, San Bernardino County, California" (Glover and Gust 2010). The analysis consists of a cultural resources records search, archival research, and a pedestrian survey.

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

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

Proposed Substation Site

P-36-021495 – The newly identified Planter Site consists of a set of rock and fence features that appears to be associated with a late 19th century grape ranch. The site was part of Grapeland, the settlement that failed due to water supply issues. The settlement of Grapeland was not associated with events that have made a significant contribution to the patterns of California's history. It is therefore not eligible for inclusion in the CRHR under Criterion A (as outlined on page 7). The site was homesteaded by Elmer Scott, and is not associated with the lives of a person or people important to California's past, and therefore is not eligible for inclusion in the CRHR under Criterion B. The site's primary features are remnants of a local cobble and mortar construction and do not embody any distinctive characteristics of a type, period, region or method of construction and is not eligible for inclusion in the CRHR under Criterion C. Finally, there are no indications of subsurface elements that would have the potential to contribute new information important to history. Therefore the site is not eligible for inclusion in the CRHR under

Criterion D. On these bases, the site is not eligible for inclusion in the CRHR and does not constitute a historical resource as defined by CEQA. As a result, construction and operation of the Proposed Project would not cause a substantial adverse change in the significance of a historical resource as defined in CCR Title 14, Section 15064.5, therefore there is no impact.

Proposed Etiwanda Subtransmission Source Line Route

The Proposed Etiwanda Subtransmission Source Line Route crosses six linear, historic resources: four historic roads (P-36-002910, P-36-011510, P-36-011511, P-36-015497), one historic railroad segment (P-36-20137) and one historic irrigation ditch (P-36-006901). Two of these resources consist of modern roads, Baseline Road and Old National Trails Highway, which are listed as a California Point of Historical Interest and a California Historical Landmark, respectively. The subtransmission line segment would span the roads. As a result, construction and operation of the Proposed Project would not cause a substantial adverse change in the significance of a historical resource as defined in CCR Title 14, Section 15064.5.

Of the remaining resources, one historic dirt road (P-36-011511), the historic railroad segment (P-36-002910) and the historic irrigation ditch (P-36-006901) do not exist within the project area. One historic dirt road (P-36-011510) has been partially destroyed, and is only visible running south of the project area. These resources do not possess integrity, and are not eligible for the CRHR. Therefore, they are not historical resources as defined in Section 15064.5 and impacts from the Proposed Project would not be significant. As a result, construction and operation of the Proposed Project would not cause a substantial adverse change in the significance of a historical resource as defined in CCR Title 14, Section 15064.5, therefore there is no impact.

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

The Proposed Project will not disturb any human remains, including those interred outside of formal cemeteries. The records search and pedestrian survey did not identify any human remains within the project area; therefore, encountering human remains during construction is considered unlikely within the project area. CEQA guidelines at Section 15064.5(e) make provision for the accidental discovery and disposition of human remains and reference other applicable state law:

(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until:

(A)The coroner of the county in which the human remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American:

1. The coroner must contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

3. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in Public Resources Code Section 5097.98.

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 24 hours after being notified of the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

In the event that human remains are encountered during construction and cannot be avoided, the remains would be treated in accordance with CEQA Guideline 15064.4(e), which is quoted above.

As a result, it is not anticipated that construction and operation of the Proposed Project would disturb any human remains, including those interred outside of formal cemeteries, therefore there is no impact.

Construction Impacts

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

The Proposed Etiwanda Subtransmission Source Line Route crosses one large historic structure site, the Kaiser Steel Mill (P-36-004131), which is considered a California Point of Historical Interest (CPHI-71). The plant has been completely dismantled, and no evidence of the site was encountered during the pedestrian survey. The Proposed Etiwanda Subtransmission Source Line Route will require underground construction in this portion of the project area and the potential for uncovering buried resources is

unknown. As described in Section 3.9, Worker Environmental Awareness Training, SCE would include instructions that would guide construction crews on the procedures to follow if cultural resources were uncovered during construction. As a result, there will be a less than significant impact to a historical resource as defined in CCR Title 14, Section 15064.5.

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

The record search and field surveys results indicate that one historic period archaeological site is located within the Proposed Project area and that no prehistoric archaeological resources are located within the Proposed Project area. The historic period archaeological resource, the Planter Site (P-36-021495), has been determined not to be significant, and therefore ineligible for inclusion in the CRHR. As described in Section 3.9, Worker Environmental Awareness Training, SCE would include instructions that would guide construction crews on the procedures to follow if cultural resources were uncovered during construction. As a result, construction and operation of the Proposed Project would not cause a substantial adverse change in the significance of an archaeological resource as defined in CCR Title 14, Section 15064.5, therefore there would be a less than significant impact.

Operation Impacts

Operation of the Proposed Project consists of the routine inspection and maintenance of the substation and subtransmission lines. These activities would not disturb the subsurface soils or geological formations. Therefore, operation of the Proposed Project would have no impact to archaeological or historical resources.

4.5.5 Paleontological Resources Environmental Setting

The paleontological resources impact analysis for the Proposed Project is adapted from two paleontological studies prepared for SCE, "Paleontological Review, Proposed Horsetown and Devore Substation Project, Riverside County, California," (Aron 2010a) and Paleontological Mitigation Recommendations Addendum: Proposed Devore Substation Project" (Aron 2010b).

Geologic mapping of the Devore and northern Fontana regions (Morton and Matti 2001; Morton 2003; Morton and Miller 2003) indicates that the area is located primarily upon Quaternary younger fan deposits of Holocene age. These sediments have low potential to contain significant nonrenewable paleontological resources. The southwestern portion of the project area crosses sediments mapped alternatively as either Holocene alluvial fan deposits of Etiwanda Creek or late Pleistocene alluvial fan deposits. The late Pleistocene alluvial fan deposit is classified as having moderate/unknown paleontological sensitivity because of its age, and the fact that finer-grained lithologies, if they occur, may contain scientifically significant fossil remains. The surface sediments throughout the project area may overlie older Pleistocene alluvium (Scott 2010). This older Pleistocene alluvium may have high paleontological sensitivity, as has been demonstrated elsewhere in the

Inland Empire (Jefferson 1991; Reynolds and Reynolds 1991; Woodburne 1991; Anderson et al. 2002; Springer et al. 2009).

4.5.6 Paleontological Resources Significance Criterion

The significance criteria for assessing the impacts to paleontological resources come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

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

Appendix G (part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, which states, "a project will normally result in a significant impact on the environment if it will …disrupt or adversely affect a paleontological resource or site or unique geologic feature, except as part of a scientific study." Public Resources Code Section 5097.5 specifies that any unauthorized removal of paleontological remains is a misdemeanor.

4.5.7 Paleontological Resources Impact Analysis

For this project, a literature review and a record search was conducted of the Regional Paleontological Locality Inventory (RPLI) at the San Bernardino County Museum (Scott 2010). The results of the search indicate that no paleontological localities are recorded within the boundaries of the Proposed Project or within one mile of the Proposed Project. The closest localities that have yielded scientifically significant fossil resources (SBCM 5.1.8; SBCM 5.1.14-5.1.21; SBCM 5.1.11) are located between 3 and 6 miles from the Proposed Project. The remains of extinct mastodon, mammoth, bison, camel, and sabre-toothed cat have been recovered from older Pleistocene alluvium at these three localities, at depths ranging from 5 feet to 20 feet below the surface. The presence of these localities in older Pleistocene alluvium demonstrates the high paleontological potential of these deposits in the Devore and northern Fontana area (Scott 2010).

Construction Impacts

Construction and operation of the Proposed Project would result in impacts for the following CEQA criterion:

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

Two surface deposits were identified within the project area. The majority of the Proposed Project is underlain by Holocene alluvium, which has low paleontological sensitivity. Portions of the Proposed Etiwanda Subtransmission Source Line Route, located between Etiwanda Substation and Foothill Boulevard are underlain by late Pleistocene alluvial fan deposits. These deposits have moderate or unknown paleontological sensitivity because of their age, and the fact that finer-grained lithologies, if they occur, may contain scientifically significant fossil remains.

It is possible that Holocene or late Pleistocene surficial deposits, especially alluvium, may be underlain by older Pleistocene alluvium. If present, the older Pleistocene alluvium may have high paleontological sensitivity, as has been demonstrated elsewhere within the Inland Empire. In the event that any project excavations penetrate to the depth where the older Pleistocene alluvium is found, the potential for encountering paleontological resources exists. As a result, SCE is proposing to implement the following Applicant Proponent Measures:

> **APM-PAL-01**. Develop and Implement a Paleontological Monitoring Plan. A project paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists shall be retained by SCE to develop and implement a Paleontological Monitoring Plan prior to the start of ground disturbing activities for the Proposed Project. As part of the Paleontological Monitoring Plan, the project paleontologist shall establish a curation agreement with an accredited facility prior to the initiation of ground-disturbing activities. The Paleontological Monitoring Plan shall also include a final monitoring report. If fossils are identified, the final monitoring report shall contain an appropriate description of the fossils, treatment, and curation.
>
> **APM-PAL-02.** Paleontological Monitoring for the Proposed Project. A paleontological monitor shall be on site to spot check ground-disturbing activities at depths greater than 5 feet during construction[2] of the Proposed Project. If very few or no fossils remains are found during ground disturbing activities monitoring time can be reduced or suspended entirely as per recommendations of the paleontological field supervisor. If fossils are found during ground-disturbing activities, the paleontological monitor shall halt the ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment.

With the implementation of APM-PAL-01 and APM-PAL-02, impacts to unexpected paleontological resources due to construction of the proposed project would be less than significant.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

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

The operation of the Proposed Project would consist of the routine inspection and maintenance of the substation and subtransmission lines. These activities would not disturb the subsurface soils or geological formations. Therefore, operation of the Proposed Project would have no impact on paleontological resources.

[2] Based on the depth of the nearest previously identified fossil localities (see page 18).

4.5.8 Applicant Proposed Measures

As previously identified, SCE would implement the following Applicant Proposed Measures, listed in Table 4.5-3, Cultural Resource Applicant Proposed Measures.

Table 4.5-3 Cultural Resource Applicant Proposed Measures

Applicant Proposed Measure	Description
APM-PAL-01 Develop and Implement a Paleontological Monitoring Plan.	A project paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists shall be retained by SCE to develop and implement a Paleontological Monitoring Plan prior to the start of ground disturbing activities for the Proposed Project. As part of the Paleontological Monitoring Plan, the project paleontologist shall establish a curation agreement with an accredited facility prior to the initiation of ground-disturbing activities. The Paleontological Monitoring Plan shall also include a final monitoring report. If fossils are identified, the final monitoring report shall contain an appropriate description of the fossils, treatment, and curation.
APM-PAL-02 Paleontological Monitoring for the Proposed Project.	A paleontological monitor shall be on site to spot check ground-disturbing activities at depths greater than 5 feet during construction of the Proposed Project. If very few or no fossils remains are found during ground disturbing activities monitoring time can be reduced or suspended entirely as per recommendations of the paleontological field supervisor. If fossils are found during ground-disturbing activities, the paleontological monitor shall halt the ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment.

4.5.9 Alternative Substation Site

The Alternative Substation site is located south of Casa Grande Avenue, east of Sierra Avenue, and north of Summit Avenue, approximately 400 feet northwest of the Proposed Substation site. No historical resources, prehistoric or historic archaeological resources, historic-period buildings, features or structures were identified during the record search or pedestrian survey of the Alternate Substation site. As a result, construction and operation of the Alternate Substation site would not cause a substantial adverse change in the significance of a historical resource or an archaeological resource.

Similar to the Proposed Substation site, the Alternative Substation site is underlain by Holocene alluvial fan deposits, with low paleontological sensitivity. These sediments may be underlain by older Pleistocene alluvium which has high paleontological sensitivity. In the event that any project excavations for the Alternative Substation site penetrate to depths where the older Pleistocene alluvium is found, the potential for encountering paleontological resources exists. The Applicant Proposed Measures implemented for the Proposed Project would be also be implemented for the Alternative Substation site, therefore impacts would be less than significant.

4.5.10 Alternative Subtransmission Source Line Routes

One historic resource, P-36-008696, is located within the Alternate Alder Subtransmission Source Line Route. The resource consists of the former Rialto Military Munitions Bunker Complex. The Alternate Alder Subtransmission Source Line Route bisects the boundaries of the Bunker Complex along a modern road. No visible remnants of the site were observed within the Alternate Alder Subtransmission Source Line Route during the pedestrian survey and the potential to encounter subsurface cultural resources is unknown. The Worker Environmental Awareness Training described in Section 3.9, implemented for the Proposed Project, would also be implemented for the Alternate Alder Subtransmission Source Line Route. As a result, construction and operation of the Alternate Alder Subtransmission Source Line Route would not cause a substantial adverse change in the significance of a historical resource or an archaeological resource.

Similar to the Proposed Project, the Alternate Alder Subtransmission Source Line Route is underlain by Holocene alluvial fan deposits, with low paleontological sensitivity. These sediments may be underlain by older Pleistocene alluvium which has high paleontological sensitivity. In the event that any project excavations for the proposed Alternate Alder Subtransmission Source Line Route penetrate to depths where the older Pleistocene alluvium is found, the potential for encountering paleontological resources exists. The Applicant Proposed Measures implemented for the Proposed Project would be also be implemented for the Alternative Alder Subtransmission Source Line Route, therefore impacts would be less than significant.

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4.6 Geology and Soils

This section describes the geology and soils in the area of the Proposed Project. The potential impacts of the Proposed Project and alternatives are also discussed. A Geotechnical Investigation was performed for the Proposed Substation site in May 2010. For more information refer to Appendix E Geotechnical Report.

4.6.1 Environmental Setting

The Proposed Project is located in the northern portion of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges Geomorphic Province is characterized by a series of ranges separated by northwest trending valleys and faults. The valleys are alluvium-filled basins of Cenozoic sedimentary and Mesozoic granitic rocks (DMG, 1994). The structural geology of the area is dominated by faults. Major faults in the province are the Cucamonga, San Jacinto and the San Andreas faults.

The Proposed Project is located in the Valley Region of San Bernardino County, in the central part of the Upper Santa Ana River Valley, sometimes referred to the Fontana Plain. The San Gabriel Mountains are to the north, Lytle Creek Wash is to the northeast, and the Jurupa Mountains are to the south. Elevations in the alluvial-filled Fontana Plain range from 850 feet above mean sea level (msl) at the southwestern corner of the City of Fontana to approximately 2,000 feet msl near the northernmost point. The Fontana Plain consists of young alluvial fan deposits (Holocene), old alluvial fan deposits (late Pleistocene to early Holocene), and metamorphic outcrops (Paleozoic or Mesozoic) that form the San Gabriel Mountains (Bortugno and Spittler, 1986) and plutoic and metamorphic outcrops that form the Jurupa Mountains. The geology of this area is shown on Figure 4.6-1, Geology.

Regionally, the ground surface slopes gently downward in a southern direction. Topography at the Proposed Project is relatively flat and slopes gently to the south at approximately a 3 percent slope. The ground surface elevation at the Proposed Substation site is approximately 1,710 feet above msl (USGS, 1988).

Potential geologic hazards, including natural phenomena such as earthquakes, liquefaction, landslide, and subsidence are discussed in the following subsections.

Faults

The Proposed Project is located in a seismically active area and therefore will likely be subjected to ground shaking from movement along one or more of the sufficiently active faults or well-defined faults[1] in the region.

[1] A “sufficiently active fault” (previously referred to as an “active fault”) is defined as a fault that has broken the surface in the past 11,000 years (CGS, 2007). A “well-defined fault” (previously referred to as

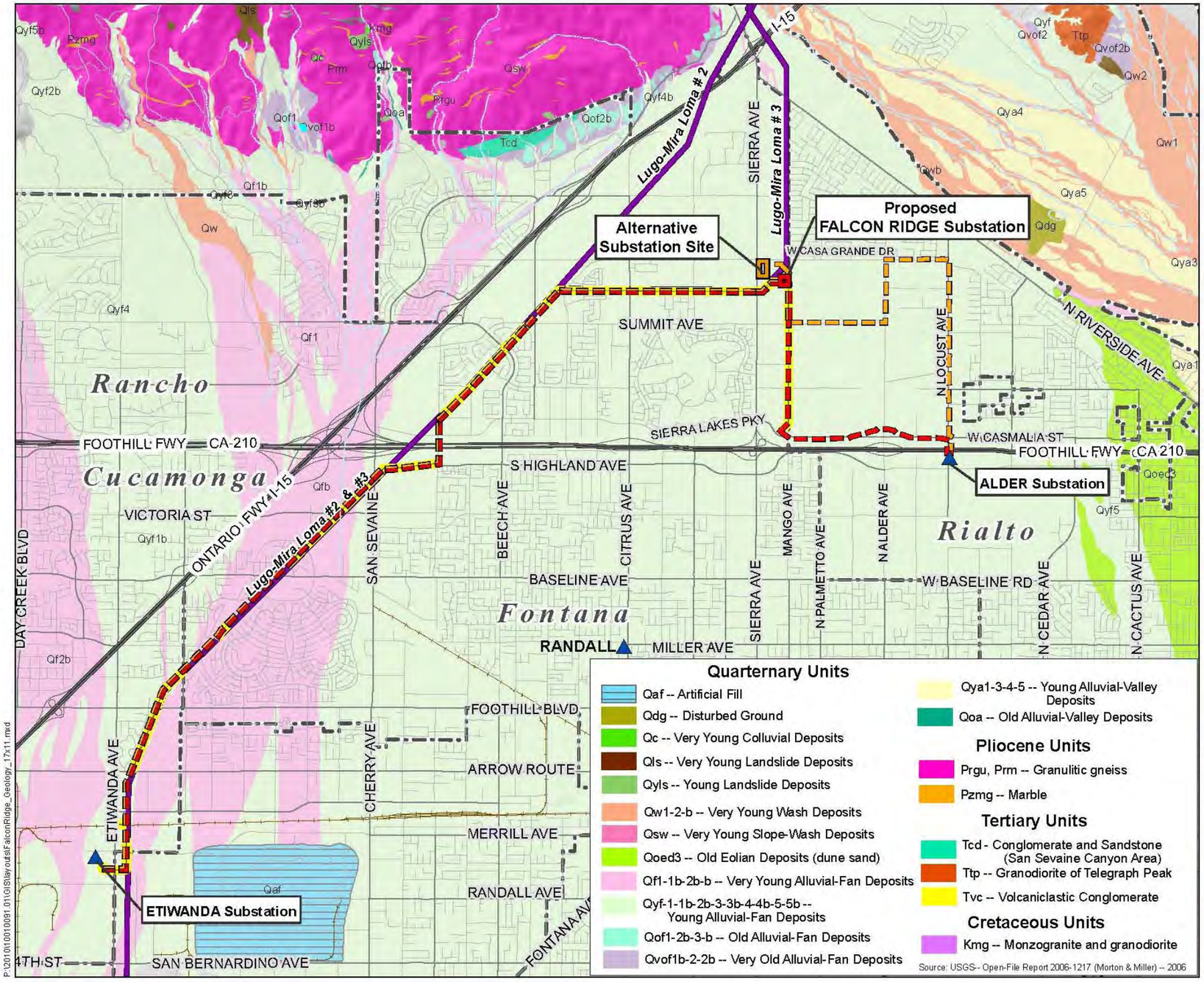
An EQFault search identified a total of 64 sufficiently active faults and well-defined faults within a 100-mile radius of the Proposed Project (Blake, 2000). Active faults within a 25-mile radius of the Proposed Substation site with the potential to generate ground accelerations of 0.1 gravity (g) or greater are listed in Table 4.6-1, Major Active Faults within a 25 mile Radius of the Proposed Substation site.

Table 4.6-1 Major Active Faults within a 25 mile Radius of the Proposed Substation Site

Fault Name	Distance[1] in miles	Direction from Site	Estimated Maximum Earthquake Magnitude	Peak Acceleration (g)
San Jacinto-San Bernardino	1.3	N	6.7	0.477
Cucamonga	1.8	NW	7.0	0.563
San Andreas – San Bernardino	6.3	NE	7.3	0.412
San Andreas – Southern	5.6	NE	7.4	0.424
Cleghorn	9.1	N	6.5	0.224
San Andreas – 1857 Rupture	12.2	N	7.8	0.371
San Andreas - Mojave	10.3	N	7.1	0.261
North Frontal Fault Zone – West	15.8	NE	7.0	0.243
San Jacinto-San Jacinto Valley	18.9	SE	6.9	0.190
San Jose	17.2	SW	6.5	0.156
Sierra Madre	16.6	NW	7.0	0.196
Chino-Central Ave (Elsinore)	19.9	SW	6.7	0.125
Whittier	24.4	SW	6.8	0.102
Elsinore-Glen Ivy	25.1	SW	6.8	0.102

Source: Blake, 2000
1. Distance generated by Blake, 2000 was revised based on the Quaternary Fault mapped by the United States Geological Survey (2006).
g = gravity

"potentially active fault") is defined as a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface.



Falcon Ridge Substation Project

Figure 4.6-1

Geology

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**
- Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

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Structural design for potential accelerations of 0.1 g and above caused by earthquakes can be managed with proper foundational design based on the geotechnical investigation. Regional faults within approximately 2 miles of the Proposed Project are shown on Figure 4.6-2, Regional Faults and Alquist-Priolo Fault Zones. No active fault zones are present within 1 mile of the Proposed Project with the exception of the northernmost portion of the Proposed Etiwanda Subtransmission Source Line Route and the collocated Proposed Telecommunication Facilities.

The Cucamonga fault zone, located approximately 4.2 miles to the northwest of the Proposed Substation site, has the greatest ground acceleration potential (0.563 g) in the vicinity of the Proposed Project. This east-west trending fault zone is between 1,500 and 3,800 feet wide, approximately 14 miles in length, and consists of several subparallel fault traces (Earth Consultants International, 2002). The Cucamonga fault may be capable of generating a moment magnitude 7.0 earthquake, which would be considered the maximum credible event that could impact the Proposed Project (Blake, 2000). Studies suggest that the Cucamonga fault zone has a slip rate of between 5 and 14 millimeters per year, with a recurrence interval for large earthquakes (magnitude 7.0 or above) of 600 to 700 years (SCEC, 2010).

Fault Rupture

The Proposed Project is located in seismically active Southern California, a region that has experienced numerous earthquakes. A review of the Alquist-Priolo (AP) Earthquake Fault maps (DMG, 2000) and the San Bernardino County AP Earthquake Fault Zone Map (County of San Bernardino, 2005) shows that the Proposed Project is not located within a currently established AP fault zone. The closest AP fault zones are the San Jacinto Fault Zone (DMG, 1994), located approximately 1.3 miles northeast of the Proposed Substation site, and the Cucamonga Fault Zone, located approximately 1.8 miles northwest of the Proposed Substation site. The AP fault zones and faults included within the zones are shown in Figure 4.6-2, Regional Faults and Alquist-Priolo Fault Zones. A northeast- trending fault, known as the Barrier J, has been inferred approximately 500 feet northwest of the Proposed Substation site. There is little known about this fault (Earth Consultants International, 2002). Barrier J acts as a groundwater barrier, causing offset of the water-bearing layers. This barrier is marked by micro-seismic activity; however, there seems to be no surface expression of the fault (Earth Consultants International, 2002). Earthquake-induced ground rupture at the Proposed Project is considered to be unlikely because there are no known active or visible fault traces on the Proposed Project.

Seismic Ground Shaking

Historically, numerous earthquakes of moderate to strong magnitude have occurred in the Fontana area. Earthquakes ranging in magnitude from 6.0 to 6.8 have occurred on the San Andreas–Southern and San Jacinto-San Bernardino faults, located approximately 6.7 miles and 2.1 miles northeast of the Proposed Substation site, respectively. Based on the California Geological Survey's (CGS's) Probabilistic Seismic Hazards Mapping Ground Motion Page (2003), there is a 10 percent probability of earthquake ground motion exceeding 0.943 g at the Proposed Substation site over a 50-year period. The Proposed

Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities are located in an area with the same potential for ground acceleration as the Proposed Substation site (0.907 g). The Proposed Alder Subtransmission Source Line Route and the Proposed Telecommunication Facilities are located in an area with slightly lower (average of 0.862 g) potential for ground acceleration than the Proposed Substation site. In the event of an earthquake, the Proposed Project could be subjected to strong ground shaking.

Liquefaction

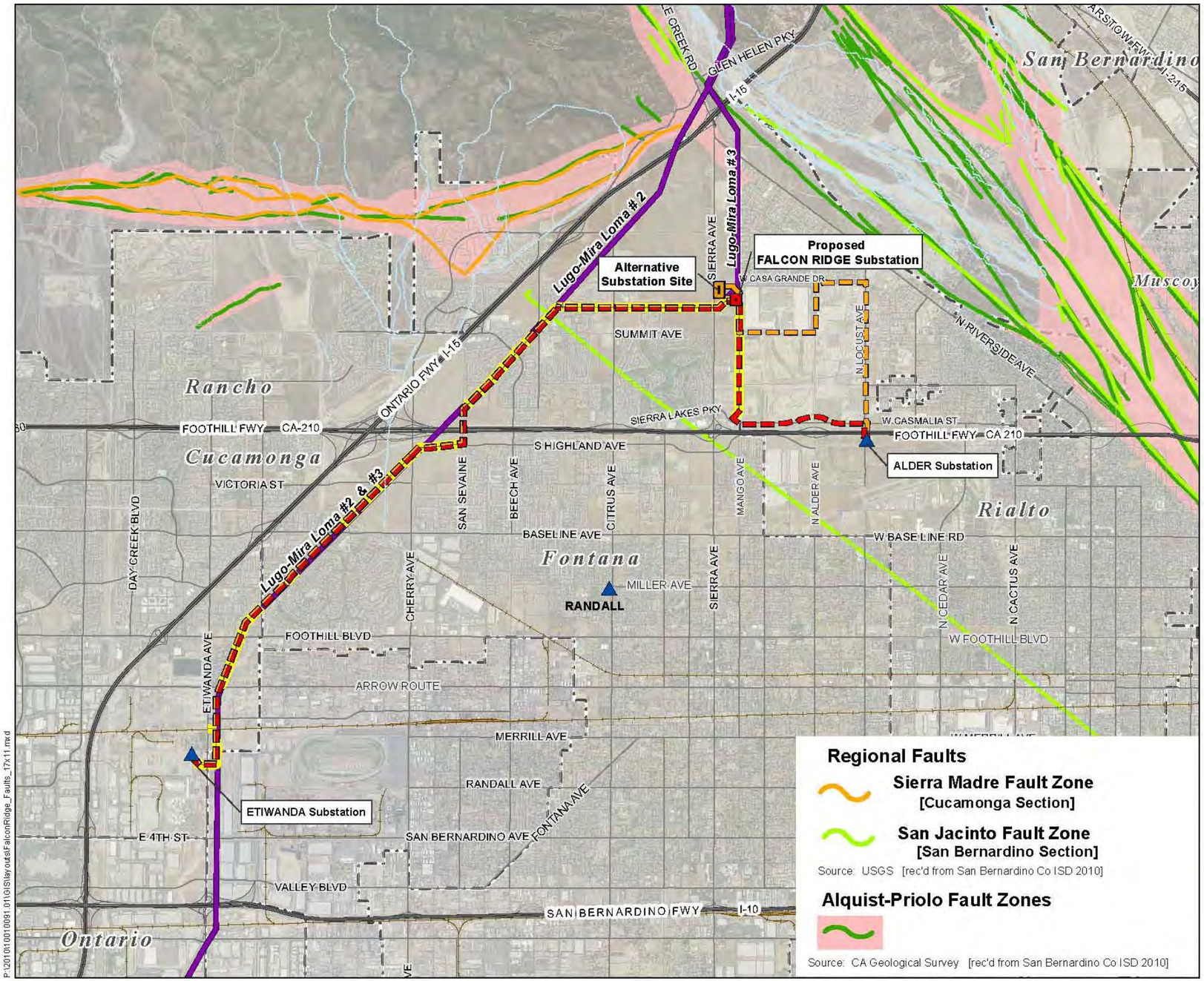
Liquefaction is a soil condition in which seismically induced ground motion causes an increase in soil water pressure in saturated, loose, sandy soils, resulting in loss of soil shear strength. Liquefaction can lead to near-surface ground failure, which may result in loss of foundation support and/or differential ground settlement. Sandy deposits deeper than 50 feet below ground surface (bgs) are not usually prone to causing surface damage. In addition, soils above the groundwater table (soils that are not saturated) will not liquefy.

The CGS has mapped the potential for earthquake-induced liquefaction in portions of the State. However, the Proposed Project is located in an area that has not been mapped by the CGS. Based on the General Plans for the County of San Bernardino (County of San Bernardino, 2005), the City of Fontana (Earth Consultants International, 2002), the City of Rialto (2010), and the City of Rancho Cucamonga (2010), the Proposed Project is located in an area with deep groundwater and with a low susceptibility to liquefaction. Based on the on-site borings, drilled for the geotechnical investigation conducted for the Proposed Substation site, the Site is not susceptible to liquefaction because the groundwater is not present to a depth of at least 26 feet bgs and is estimated to be approximately 300 feet bgs (TDBU, 2010; Santa Ana Watershed Project Authority, 2010). The Proposed Project is not considered susceptible to liquefaction.

Landslides

Based on the general plans of the County of San Bernardino (County of San Bernardino, 2005), the City of Fontana (Earth Consultants International, 2002), the City of Rialto (2010), and the City of Rancho Cucamonga (2010), the Proposed Project is not located in areas susceptible to landslides. The Proposed Project is not considered to be in an area with the potential for permanent ground displacement due to earthquake-induced landslides because surface topography at and near the Proposed Project is relatively flat, and there is an absence of nearby slopes (USGS, 1988). In addition, the geotechnical report considered landslide susceptibility at the Proposed Substation site to be low (TDBU, 2010).

The majority of the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities will be located along SCE’s existing transmission Right of Way (ROW).



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Falcon Ridge Substation Project

Figure 4.6-2
Regional Faults
&
Alquist-Priolo Fault Zones

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**

Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

N

0 0.5 1 2 Miles

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The entire length of the Proposed Subtransmission Source Line Routes and the Telecommunication Facilities are located in the valley floor. Due to the relatively flat topography of the valley floor (3 percent grade to the south) the area is not susceptible to soil slumps and block slides. The potential for landslides to affect the Proposed Subtransmission Source Line Routes and the Proposed Telecommunication Facilities is considered low.

Subsidence

Subsidence and fissures resulting from groundwater withdrawal and hydrocollapse have not been documented in the Valley Region of San Bernardino County. Little data regarding subsidence is available for the various regions in the County (County of San Bernardino, 2005). Subsidence of about 2 feet has been documented between 1969 and 1998 in the Lucerne Valley area, located approximately 30 miles to the northeast of the Proposed Project (County of San Bernardino, 2005). Fissures are caused by the lowering of groundwater tables and by hydrocollapse when groundwater tables rise. Fissures associated with groundwater levels or faults have not been reported at the Proposed Project. The risk of fissures and subsidence at the Proposed Project is considered to be low due to groundwater depths of approximately 300 feet bgs beneath the Proposed Substation site, between 400 feet to 600 feet bgs beneath the Proposed Etiwanda Subtransmission Source Line Route, and between 300 and 600 feet bgs beneath the Proposed Alder Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route B (Kleinfelder, 2007).

Collapsible Soils

Alluvial soils in arid and semi-arid environments have the tendency to possess characteristics that make them prone to collapse with increase in moisture content and without increase in external loads. The Proposed Project is located in a geologic environment where some potential exists for the occurrence of collapsible soils.

Collapsible soils occur when there is an increase in moisture content, such as a rise in groundwater levels or from a rain event. The potential for collapse as a result of rising groundwater levels at the Proposed Project is considered low, because groundwater beneath the Proposed Substation site is approximately 300 feet bgs, between 400 feet to 600 feet bgs beneath the Proposed Etiwanda Subtransmission Source Line Route, and between 300 and 600 feet bgs beneath the Proposed Alder Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route B. With the exception of landscaped areas around the perimeter, the Proposed Substation site would not be irrigated, and the Proposed Project Site is located in a region with relatively low precipitation. Therefore, collapse occurring as a result of minimal infiltrating surface waters is also considered unlikely. CGS has not mapped any Seismic Hazard Zone maps for San Bernardino County; therefore, there is no documentation of fissures associated with collapsible soils within in the County, and evidence of collapse at the Proposed Substation site was not noted in the geotechnical report prepared for the Proposed Substation site (TDBU, 2010). The potential for soil collapse is considered low.

Seismic Settlement

Seismically induced settlement can occur in areas where earthquake shaking causes densification of relatively loose sediments. Settlement can result in damage to surface and near-surface structures.

Due to its proximity to an active fault zone, the Proposed Project could experience moderate to high levels of earthquake-induced ground shaking. The geotechnical investigation conducted at the Proposed Substation site (TDBU, 2010) did not identify unstable geologic units.

Erosion

Erosion is the displacement of solids (soil, mud, rock, and other particles) by wind, water, or ice and by downward or down-slope movement in response to gravity. Due to generally flat terrain, the Proposed Project currently is not prone to significant mass erosion. Soil characteristics at the Proposed Project consist of alluvium composed of gravelly sand and sandy gravel with boulders predominantly of coarse sandy loam, with minor components of fine sandy loam and sandy loam, as mapped by the United States Department of Agriculture, Natural Resource Conservation Service (USDA, 2010). The County of San Bernardino General Plan (2005) has not classified the wind erosion potential for soils at the Proposed Project.

Expansive Soil

Expansive soil is composed of naturally occurring clay that has a material composition susceptible to shrinking and swelling. It is generally found in areas that were historically a flood plain or lake area, but it can also occur in hillside areas. Expansive soil is subject to swelling and shrinkage, varying in proportion to the amount of moisture present in the soil and the material composition of the clay. As water is initially introduced into the soil (by rainfall or watering), expansion takes place. If dried out, the soil will contract, often leaving fissures or cracks. Excessive drying and wetting of the soil can progressively deteriorate structures over the years by leading to differential settlement beneath or within buildings and other improvements.

Based on the geotechnical investigation at the Proposed Substation site (TDBU, 2010), soils are expected to consist predominately of gravelly sand and sandy gravel with boulders. Because the Proposed Project is located on alluvial deposits, it is expected that soils beneath the Proposed and Alternate Subtransmission Source Line Routes also consists of gravelly sand and sandy gravel with boulders. This suggests that the expansion potential of on-site soils is very low at the Proposed Substation site and Proposed Subtransmission Source Line Routes.

Soils

The soil types found within the Proposed Project area are listed in Table 4.6-2, Soil Types Underlying the Proposed Project. Soils at the Proposed Substation site range from gravelly- to stony-loamy sand. These soils have slight erosion potential and are

excessively drained. Excessively drained soils are very porous and rapidly permeable, and have low available water capacity.

Table 4.6-2 Soil Types Underlying the Proposed Project

Location	Soil Type	Erosion Class	Drainage Class
Proposed Substation Site and Alternative Substation Site	Soboba Gravelly Loamy Sand	Slight	Excessively Drained
	Soboba Stony Loamy Sand	Slight	Excessively Drained
Proposed and Alternative Subtransmission Source Line Routes	Hanford Coarse Sandy Loam	Slight	Well Drained
	Soboba Gravelly Loamy Sand	Slight	Excessively Drained
	Soboba Stony Loamy Sand	Slight	Excessively Drained
	Tujunga Gravelly Loamy Sand	Slight	Somewhat Excessively Drained
	Tujunga Loamy Sand	Slight	Somewhat Excessively Drained
	Psamments and Fluvents Frequently Flooded	Slight	Somewhat Excessively Drained

Source: USDA, Natural Resources Conservation Service, 2010

Soil types along the Proposed and Alternative Subtransmission Source Line Routes range from coarse sandy loam to stony loamy sand and gravely sand. These soils have a slight potential for erosion and are well drained to somewhat excessively drained. In the areas where the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities cross the East Etiwanda Creek, soils range from sand to loamy sand. The soils have a slight potential for erosion and are somewhat excessively drained.

4.6.2 Regulatory Setting

California Building Code

The Proposed Project is subject to the applicable sections of the California Building Code (CBC), which is administered by the California Building Standards Commission. The Building Departments for San Bernardino County, the City of Fontana, the City of Rialto, and the City of Rancho Cucamonga are responsible for implementing the CBC for the Proposed Project.

Alquist-Priolo Earthquake Fault Zoning Act

The AP Earthquake Fault Zoning Act was enacted by the State of California in 1972 to mitigate the hazard of surface faulting to structures planned for human occupancy and other critical structures. The State has established regulatory zones (known as Earthquake Fault Zones and often referred to as "AP zones") around the surface traces of active faults and has issued Earthquake Fault Zone Maps to be used by government agencies in planning and reviewing new construction. In addition to residential projects, structures planned for human occupancy that are associated with industrial and commercial projects are of concern. The Proposed Project is not located within an AP fault zone, and there are no proposed structures planned for human occupancy; therefore, the AP Earthquake Fault Zoning Act does not apply to the Proposed Project. However, the AP Zone maps were reviewed as a reference for the locations of known active faults near the Proposed Project.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code, Chapter 7.8, Section 2690-2699.6) directs the Department of Conservation of the CGS to identify and map areas prone to liquefaction, earthquake-induced landslides and amplified ground shaking. The purpose of this program is to minimize loss of life and property through the identification, evaluation and mitigation of seismic hazards. Seismic Hazard Zone Maps that identify Zones of Required Investigation[2] are generated as a result of the program. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. The Proposed Project is in an area that has not been mapped as part of the Seismic Hazards Mapping Act.

Department of Building and Safety Requirements

The Proposed Project is subject to the building and safety requirements of the County of San Bernardino, and the cities of Fontana, Rialto, Rancho Cucamonga. The San Bernardino County Grading Code requires a grading permit for excavations greater than 2 feet in depth or a fill of 1 foot or more in thickness, and grading activities over 5,000 cubic yards requires plans drawn by a civil engineer. Grading plans will also be handled by the City of Fontana, the City of Rialto, and the City of Rancho Cucamonga for the portions of the Proposed Project within their respective jurisdictions.

4.6.3 Significance Criteria

The significance criteria for assessing the impacts to geology and soils were obtained from the California Environmental Quality Act (CEQA) Appendix G Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

[2] Zones of Required Investigation are areas prone to liquefaction and earthquake- induced landslides.

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent AP 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); strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides

- Result in substantial soil erosion or the loss of topsoil

- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse

- 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

- 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

4.6.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criterion:

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 waste water?

The Proposed Substation site currently has potable water service available; however, at this time there is no feasible sewer option available. Therefore, the Proposed Substation site will be equipped with a restroom consisting of a portable chemical unit maintained by an outside service company. No septic or alternative waste water disposal systems requiring soils capable of supporting these systems would be installed at the Proposed Substation site. As a result, there would be no impact to soils unable to support a septic system or alternative waste water disposal systems.

Construction Impacts

Construction of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

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

During construction, loss of topsoil and erosion could result from construction activities including the operation of heavy machinery on unimproved roadways, grading activities,

excavation, drilling, or wind or water erosion of stockpiled fill/excavated materials at staging areas or laydown areas. Preparation of the staging areas may result in the loss of topsoil; however, the application of road base or crushed rock would serve to reduce erosion potential. Existing and new access roads would also result in the loss of topsoil; however, compaction would serve to minimize erosion on roadways.

Erosion due to water and wind would be minimized by the implementation of Best Management Practices (BMPs) that will be provided in the Storm Water Pollution Prevention Plan (SWPPP) prepared for the Proposed Project (please see Section 3.2.1, Storm Water Pollution Prevention Plan, for more information on BMPs and the SWPPP). During construction, water trucks and other Best Available Control Measures (BACM) would be used to minimize the quantity of fugitive dust created by construction, per the South Coast Air Quality Management District (SCAQMD) Rule 403-Fugitive Dust. In addition, the grading permits issued by the County of San Bernardino, the City of Fontana, the City of Rialto, and the City of Rancho Cucamonga would include surface improvements that would minimize soil erosion and the loss of topsoil. Implementation of the Worker Environmental Awareness Plan (WEAP), as described in Section 3.9, Worker Environmental Awareness Training, would provide site personnel with instruction on the individual responsibilities under the Clean Water Act (CWA), the project SWPPP, site-specific BMPs, and instruction on the SCAQMD fugitive dust control measures. Site preparation, design and construction in compliance with the SWPPP, the grading permit and fugitive dust control measures as well as implementation of the WEAP would make impacts due to soil erosion and loss of topsoil less than significant.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, or injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent AP 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.); strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides?

Operation of the Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, or injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction and landslides.

Due to its proximity to an active fault zone, the Proposed Project could experience moderate to high levels of earthquake-induced ground shaking. Even though the Proposed Project is located in an area susceptible to earthquake forces, the structures would not be utilized for human occupancy and would be unattended with the exception of routine maintenance activities. Structures would also be designed consistent with the IEEE 693, Recommended Practices for Seismic Design of Substations. The geotechnical

investigation report for the Proposed Substation site (TDBU, 2010) presents seismic design parameters, which will be incorporated into the design of the Proposed Substation. Similarly, the Proposed Subtransmission Source Line Routes and the Proposed Telecommunication Facilities would be designed consistent with California Public Utilities Commission General Order 95 to withstand seismic loading. Therefore, anticipated impacts due to seismic activity during operation of the Proposed Project would be less than significant.

The Proposed Project is located in a geologic environment where some potential exists for liquefaction. Liquefaction occurs when seismically induced ground motion causes an increase in soil water pressure in saturated, loose, sandy soils, resulting in loss of soil shear strength. Soils above the groundwater table (soils that are not saturated) will not liquefy. The potential for liquefaction in the Proposed Project area is very low because groundwater beneath the area is approximately 300 feet bgs beneath the Proposed Substation site, between 400 feet to 600 feet bgs beneath the Proposed Etiwanda Subtransmission Source Line Route, and between 300 and 600 feet bgs beneath the Proposed Alder Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route B. The occurrence of groundwater at these depths makes it very unlikely that liquefaction would occur.

The potential for risk from on-site or off-site landslides is considered to be less than significant because the topography at the Proposed Project is relatively flat, and there is an absence of nearby slopes.

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

The Proposed Project has been mapped as having a potential for slight erosion. However, the surface of the Proposed Substation site will have semi-permeable and impervious materials, reducing the erosion potential or loss of the topsoil. In addition, following the completion of construction, areas that were temporarily disturbed by Proposed Project construction activities would be restored. Restoration areas could be inclusive of, but are not limited to some access roads, material staging yards, laydown areas, pull and tension sites, splicing sites and pull box locations. Restoration of these areas would include restoring original contours and reseeding (with native seed mix), to the extent feasible, to stabilize soils and minimize future soil and topsoil erosion.

Permanent erosion control measures and BMPs for the Proposed Substation site would be implemented to reduce water and wind erosion of soils, or loss of topsoil, from operation of the Proposed Project to less than significant.

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?

The potential for risk from on-site or off-site landslides is considered to be less than significant because the topography at the Proposed Project is relatively flat, and there is an absence of nearby slopes.

Fissures, subsidence, and liquefaction at the Proposed Project are considered to be unlikely due to the relatively deep occurrence of groundwater beneath the Proposed Project Site. The Proposed Project is located in a geologic environment where some potential exists for collapsible soils. Fissures, subsidence, and collapsible soils can be associated with increases and decreases in water table levels beneath the Proposed Project Site. The potential for fissures, subsidence, and collapsible soils in the Proposed Project area are very low because groundwater beneath the area is approximately 300 feet bgs beneath the Proposed Substation site, between 400 feet to 600 feet bgs beneath the Proposed Etiwanda Subtransmission Source Line Route, and between 300 and 600 feet bgs beneath the Proposed Alder Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route B. The occurrence of groundwater at these depths makes it very unlikely that groundwater will rise to levels that may cause fissures, collapsible soils, subsidence, and/or liquefaction.

Although the potential for soil collapse is considered low, SCE would over-excavate the soil within and around shallow foundations, place the soil back into the excavation and compact as specified in the geotechnical report prepared for the Proposed Substation site (TDBU, 2010). Because the potential for soil collapse is near the surface, deep bore foundations would not be impacted.

Provided that measures for sub-grade improvements are implemented as recommended in the geotechnical report for the Proposed Substation site (TDBU, 2010), the potential for damage due to seismically induced settlement is considered to be very low.

The geotechnical investigation conducted at the Proposed Substation site (TDBU, 2010) did not identify unstable geologic units. In addition, unstable geologic units or soils were not identified during a review of available data. Impacts due to unstable geologic units or soils are therefore considered to be less than significant.

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?

Expansive soils were not encountered during the geotechnical investigation conducted for the Proposed Substation site (TDBU, 2010); therefore, it is unlikely that expansive soils are present at the Proposed Substation site. The geotechnical report also provides site-specific project design and construction recommendations, such as over-excavation of soil for earthwork at the Proposed Substation site. Based on the geotechnical investigation at the Proposed Substation site (TDBU, 2010), soils are expected to consist of gravelly sand and sandy gravel with common boulders, suggesting that the expansion potential of on-site soils is very low. In addition, the Proposed Subtransmission Source Line Routes are located on alluvial materials similar to the Proposed Substation site; therefore, the expansion potential of these soils is anticipated to be very low. Impacts from expansive soils are considered to be less than significant.

4.6.5 Alternative Substation Site

The Alternative Substation site is located south of Casa Grande Avenue, east of Sierra Avenue, and north of Summit Avenue, approximately 400 feet northwest of the Proposed Substation site. The Alternative Substation site is very similar to the Proposed Substation site in topography, soils, and potential geologic hazards. It is not located in an area with a known fault trace or in an earthquake-induced landslide hazard area. It has a low potential for seismic settlement, subsidence, expansive soils, erosion, and is not susceptible to liquefaction. The Alternative Substation site has the same potential for experiencing strong ground shaking in the event of an earthquake as the Proposed Substation site. As a result, construction and operation at the Alternative Substation site would have similar impacts to geology and soils as the Proposed Substation site. With the implementation of the geotechnical recommendations (TDBU, 2010) for the design and construction of the Proposed Substation site, impacts of the Alternative Substation site on geology and soils would be less than significant.

4.6.6 Alternative Subtransmission Source Line Routes

Geologic and soil conditions along the Alternative Subtransmission Source Line Routes are similar to those of the Proposed Subtransmission Source Line Routes. As a result, impacts to geology and soils for the Alternative Subtransmission Source Line Routes are similar to those of the Proposed Subtransmission Source Line Routes. Impacts would be less than significant.

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4.7 Greenhouse Gas Emissions

This section describes greenhouse gas (GHG) emissions in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

4.7.1 Environmental Setting

GHG emissions that may contribute to global climate change include water vapor, carbon dioxide (CO_2), several trace gases, and aerosols. Currently, man-made (anthropogenic) emissions are regulated in California for the following gases: CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6). SF_6 gas is used in substation circuit breakers and can potentially leak from the equipment. CO_2, CH_4, and other trace combustion products are emitted by fuel burning equipment during construction and operation of the proposed facilities.

Anthropogenic emissions of CO_2 in developed countries occur largely from combustion of fossil fuels. In California, the major categories of fossil fuel combustion CO_2 sources can be separated into residential, commercial, industrial, transportation, and electricity generation sectors. Other GHG emissions, such as CH_4 and N_2O, are also tracked, but occur in much smaller quantities. California's anthropogenic GHG emissions are a small fraction of the world's total anthropogenic emissions and are relatively minor when compared to estimates of naturally occurring CO_2 emissions. When quantifying GHG emissions, the different global climate change potentials of GHG pollutants are usually taken into account by normalizing their rates to an equivalent CO_2 emission rate (CO_2e).

Atmospheric CO_2 concentrations are the result of natural and anthropogenic sources, as well as natural sinks, such as the oceans and plant photosynthesis. Ice cores have been used to estimate historical CO_2 levels. Continuous atmospheric measurements with sophisticated instrumentation have only been available since 1954. The ice core data indicates that CO_2 levels may have been 10 or 20 times higher in the geologic past than in the present. CO_2 has periodically cycled between 200 and 300 parts per million (ppm) during the last 400,000 years. However, during the past 50 years, CO_2 has increased to 390 ppm as measured by instruments in Hawaii. Present levels are much lower than during most of the world's history; however, CO_2 is estimated to be much higher today than it has been for several thousand years.

Historic global temperatures are difficult to estimate, and much debate has occurred regarding methodologies that have been used. However, it is widely accepted that historic global temperatures have cycled periodically much hotter and much colder than present conditions. As recently as 1,000 years ago, the Medieval Warm Period was probably much warmer than today. Only 500 years ago, the Little Ice Age was probably much cooler than today.

A more extensive discussion of GHG emissions and the effects that they may cause is available in the "Final Statement of Reasons for Regulatory Action, Amendments to the

State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97" (California Natural Resources Agency, 2009).

4.7.2 Regulatory Setting

Federal, State and local policies that address greenhouse gas emissions and global climate change in the context of the Proposed Project are described below.

Federal Mandatory Reporting of Greenhouse Gases (40 Code of Federal Regulations Parts 86, 87, 89 et. al)

The U.S. Environmental Protection Agency (EPA) promulgated this rule in 2009 to require mandatory reporting of GHG from large GHG emissions sources within 31 source categories in the United States. In general, the threshold for reporting is 25,000 metric tons or more of CO_2e. Reporting is at the facility level, except that certain suppliers of fossil fuels and industrial GHGs along with vehicle and engine manufacturers will report at the corporate level. Facilities and suppliers began collecting data on January 1, 2010. The first emissions report is due on March 31, 2011, for emissions during 2010. Manufacturers of vehicles and engines outside of the light-duty sector will begin reporting CO_2 for model year 2011 and other GHGs in subsequent model years as part of existing EPA certification programs. This rule does not currently require reporting SF_6 emissions from electrical equipment.

California Global Warming Solutions Act of 2006 (Assembly Bill 32)

The California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) charges the California Air Resources Board (CARB) with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. The CARB established a scoping plan in December 2008 for achieving reductions in GHG emissions and must develop regulations by January 1, 2011 for reducing those emissions by the year 2020. AB 32 also directs the CARB to recommend a *de minimis* threshold of GHG emissions below which emission reduction requirements will not apply.

Senate Bill 375 – Sustainable Communities Strategy

Senate Bill (SB) 375 of 2008 further enhances the goals of AB 32 by integrating planning efforts for transportation, land use, and housing (CARB, 2010). Under SB 375, the CARB must develop regional GHG emission reduction targets for passenger vehicles and light trucks. The CARB is required to establish targets for 2020 and 2035 for each region in California included in one of the State's 18 metropolitan planning organizations (MPOs). Each MPO must prepare a sustainable communities strategy (SCS) that demonstrates how the region will meet its GHG reduction target through integrated land use, housing and transportation planning. Once adopted by the MPO, the SCS will be incorporated into that region's federally enforceable regional transportation plan.

California Mandatory GHG Reporting Regulation (17 California Code of Regulations Sections 95100 - 95133)

Pursuant to AB 32, the CARB adopted the Mandatory GHG Reporting Regulation. The facilities required to annually report their GHG emissions include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 metric tons per year of CO_2 from stationary source combustion. In particular, retail providers of electricity are required to report fugitive emissions of SF_6 related to transmission and distribution systems, substations, and circuit breakers located inside California that the retail provider or marketer is responsible to maintain in proper working order.

County of San Bernardino General Plan Amendment and GHG Reduction Plan

In 2006, the California State Attorney General (Edmund G. Brown, Jr.) submitted comments on the County's General Plan Update Draft Environmental Impact Report (EIR) during the public comment period and requested that the EIR analyze GHG emissions impacts, set forth mitigation measures, and also analyze the effects of emissions increases on the GHG reductions mandated by AB 32 (Office of the Attorney General, 2007). However, in the Final EIR released in 2007 (which was certified in March 2007), the County determined that there were no adopted regulations or data on baseline conditions that could guide such an analysis under the California Environmental Quality Act (CEQA). Attorney General Brown therefore filed suit in San Bernardino County Superior Court in April 2007, claiming that the County's Final EIR was not in compliance with CEQA.

In August 2007, the State and the County reached a settlement agreement, wherein the County would:

- Amend the General Plan
- Prepare a GHG Emissions Reduction Plan that identifies all known, or reasonably known, sources of GHG emissions, estimate 1990 GHG emission levels, inventory current GHG emission levels, estimate GHG emissions in 2020 attributable to the County's discretionary land use decisions and operations, and establish targets and identify mitigation measures for reducing GHG emissions attributable to the County's discretionary land use decisions and operations
- Prepare environmental review of the GHG Emissions Reduction Plan

Due to the regional nature of GHG emissions, the San Bernardino Associated Governments (SANBAG) has the lead role in coordinating the effort to prepare the Regional GHG Inventory and Reduction Plan and the associated EIR. According to the San Bernardino County 2010 General Plan Annual Report (2010) and SANBAG staff (Duane Baker, 2010), the GHG Emissions Reduction Plan and associated EIR are expected to be finalized in 2010 and 2011, respectively.

City of Fontana

In February 2010, the City of Fontana City Council executed a Memorandum of Understanding between the City and SANBAG for the management of and payment toward preparation of a Regional GHG Inventory and Reduction Plan and the associated EIR (City Council Action Report, 2010). The City of Fontana has not yet amended its General Plan, which was last updated in 2003, to include policies that specifically address GHG emissions.

City of Rialto Draft General Plan (anticipated adoption in November 2010)

The Draft General Plan for the City of Rialto is expected to be adopted in November 2010. The Sustainable Building Practices and Energy Conservation section of the City's Draft General Plan includes the following policies that address GHG emissions and climate change:

Policy 2-38.1 Consult with State agencies, Southern California Association of Government (SCAG), and SANBAG to implement AB 32 and SB 375 by utilizing incentives to facilitate infill and transit-oriented development.

Policy 2-38.4 The City shall participate in the San Bernardino Regional GHG Inventory and Reduction Plan.

City of Rancho Cucamonga General Plan (May 2010)

The General Plan for the City of Rancho Cucamonga includes several policies that address GHG emissions, and energy consumption. Specifically, these appear in the Community Mobility (CM), Resource Conservation (RC), and Public Health and Safety (PS) sections of the General Plan. These policies include:

CM-6.3 Maintain consistency with the South Coast Air Quality Management District (SCAQMD) air quality mandates, SANBAG's Congestion Management and Nexus Programs, and SCAG's Regional Mobility Plan requirements.

RC-4.4 Reduce operational energy requirements through sustainable and complementary land use and circulation planning. Support implementation of State mandates regarding energy consumption and GHG reduction, including AB 32 and SB 375.

PS-10.1 Pursue efforts to reduce air pollution and GHG emissions by implementing effective energy conservation and efficiency measures and promoting the use of renewable energy (e.g., solar, wind, biomass, cogeneration, and hydroelectric power).

PS-12.1 Consult with State agencies, SCAG, and SANBAG to implement AB 32 and SB 375 by utilizing incentives to facilitate infill and transit-oriented development.

PS-12.2 Encourage renewable energy installation, and facilitate green technology and business and a reduction in community-wide energy consumption.

PS-12.4 Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit.

4.7.3 Significance Criteria

The significance criteria for assessing the impacts from GHG emissions come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

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

4.7.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criterion:

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

State Policies

The Climate Action Team, which consists of representatives from various State boards and departments, including the California Public Utilities Commission (CPUC), has issued various reports outlining strategies to reduce climate change-related emissions in California. The reports serve as the primary State guidance to date. SCE complies with all Climate Action Team guidance.

CARB staff, in collaboration with interested stakeholders, is currently developing a control measure to address SF_6 emissions from electricity transmission and distribution equipment. However, this control measure has not yet been adopted.

County and City Policies

A portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities are located in unincorporated San Bernardino County. As the County of San Bernardino has not yet amended its General Plan to include policies that specifically address GHG emissions or adopted its Regional GHG Inventory and Reduction Plan, there are no County policies adopted for the purpose of reducing the emissions of GHG that would apply to the Proposed Project.

The Proposed Substation site, proposed Distribution Getaways and portions of the Proposed Alder and Etiwanda Subtransmission Source Line Routes and Proposed

Telecommunication Facilities are located in the City of Fontana; however, the City of Fontana has not yet adopted policies for the purpose of reducing the emissions of GHGs.

Portions of the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities and proposed modifications at the Alder Substation would be located in the City of Rialto. Since construction and operation of the Proposed Alder Subtransmission Source Line Route, Proposed Telecommunication Facilities and proposed modifications to the Alder Substation do not constitute land uses that would generate substantial trips (such as a residential or commercial project) they would not conflict with the City of Rialto's Draft General Plan policy to facilitate infill and transit-oriented development. Additionally, construction and operation of the Proposed Alder Subtransmission Source Line Route, Proposed Telecommunications Facilities, and proposed modifications to the Alder Substation would not conflict with the City's of Rialto's Draft General Plan policy to participate in the San Bernardino County's Regional GHG Inventory and Reduction Plan, since the County has not yet amended its General Plan to include policies that specifically address GHG emissions or adopted its Regional GHG Inventory and Reduction Plan.

Portions of the Proposed Etiwanda Subtransmission Source Line Route, Proposed Telecommunication Facilities and proposed modifications to the Etiwanda Substation would be located in the City of Rancho Cucamonga. The City of Rancho Cucamonga has adopted several policies that address GHG emissions through transportation and land use planning, as well as through reducing energy consumption. Construction and operation of the Proposed Etiwanda Subtransmission Source Line Route, Proposed Telecommunication Facilities and modifications to the Etiwanda Substation would not conflict with these policies, as they would not generate a substantial amount of trips or include a land use that would conflict with transit-oriented development policies. Additionally, construction and operation of the portions of the Proposed Project in the City of Rancho Cucamonga would be part of a system that delivers electricity in order to meet existing electrical demand (refer to Section 6.2, Growth Inducing Impacts); construction and operation of the Subtransmission Source Line Route would not actually consume a substantial amount of energy that would result in a conflict with policies that serve to reduce GHG emissions through a reduction in energy consumption.

SCE GHG Emissions Reduction Activities

SF_6 Gas Management Guidelines

SCE has developed SF_6 Gas Management Guidelines that require proper documentation and control of SF_6 gas inventories, whether in equipment or in cylinders.[1] Inventories are documented on both a quarterly and a yearly basis. SCE assumes that any SF_6 gas that is purchased and not used to fill new equipment is needed to replace SF_6 gas that has inadvertently leaked from equipment already in service. This assumption forms the basis

1 Until ARB finalizes its proposed SF_6 emissions reductions rules, SCE will continue to follow its internal company policy.

for SCE to track and manage SF_6 gas emissions. Currently, SCE voluntarily reports these emissions to the California Climate Action Registry, which was created by the California legislature to help companies track and reduce GHG emissions.

SCE has taken proactive steps in the effort to minimize GHG emissions since 1997. In 1997, SCE established an SF_6 Gas Resource Team to address issues pertaining to the environmental impacts of SF_6. The team developed the Gas Management Guidelines that allow for rapid location and repair of equipment leaking SF_6 gas. In addition, in 2001, SCE's parent organization, Edison International, joined the EPA's voluntary SF_6 gas management program, committing SCE to join the national effort to minimize emissions of this GHG. Importantly, SCE's SF_6 emissions in 2006 were 41 percent less than in 1999, while the inventory of equipment containing SF_6 gas actually increased by 27 percent during the same time period.

SCE has made a significant investment in not only improving its SF_6 gas management practices, but also in purchasing state-of-the-art gas handling equipment that minimizes SF_6 leakage. The new equipment has improved sealing designs that virtually eliminate possible sources of leakage. SCE has also addressed SF_6 leakage on older equipment by performing repairs and replacing antiquated equipment through its infrastructure replacement program. It is expected that the Proposed Project would have a minimal amount of SF_6 leakage as a result of the installation of state-of-the-art equipment and SCE's SF_6 gas management practices. Pursuant to its existing practices, SCE would reduce potential GHG impacts resulting from the Proposed Project to the greatest extent practicable.

Low Emission Vehicle Fleet

The SCE fleet incorporates a significant number of clean diesel, electric and hybrid-electric service vehicles. In addition to meeting CARB emission standards for air quality criteria pollutants, SCE is aggressively lowering GHG emissions from SCE fleet operations.

As described above, SCE is actively engaging in practices and programs to reduce GHG emissions, and SCE also complies with all Climate Action Team guidance. Further, construction and operation of the Proposed Project would not conflict with plans, policies or regulations adopted by the County of San Bernardino or the cities of Fontana, Rancho Cucamonga, or Rialto for the purpose of reducing GHG emissions. Thus, the Proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. There would be no impact.

Construction and Operation Impacts

Construction and operation of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

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

Project-specific GHG emission thresholds have yet to be developed by most responsible agencies. However, SCAQMD has adopted specific CEQA GHG emissions threshold guidelines for projects in which they are the lead agency. SCAQMD developed their thresholds with the involvement of the CARB, the Office of Planning and Research (OPR), other agencies, and stakeholders. The latest draft of the CARB Statewide guidelines is consistent with the SCAQMD guidelines. In the absence of Statewide project-specific significance thresholds, the analysis of potential impacts in this Proponent's Environmental Assessment (PEA) compares the emissions to the SCAQMD significance thresholds and the draft CARB recommendations.

The applicable numeric significance threshold for projects within the SCAQMD is 10,000 metric tons per year of CO_2e. This threshold includes construction emissions, amortized over 30 years, plus operational emissions. The current draft of the CARB recommendations has an applicable numeric threshold of 7,000 metric tons per year of CO_2e. The CARB's threshold does not include construction emissions. Their current draft suggests that they may recommend fuel efficiency and other mitigation measures for construction activities.

Construction-Period GHG Emissions

Fuel combustion in construction equipment and motor vehicles would be the source of GHG emissions during construction of the Proposed Project. GHG emissions from construction equipment and motor vehicle fuel combustion during construction were calculated by applying GHG emission factors from the SCAQMD CEQA Handbook webpage (SCAQMD, 2009) to construction data in Chapter 3, Project Description (please see Appendix C, Air Quality Calculations, for details). The estimated total emissions of GHGs from the Proposed Project construction activities are 1,362 metric tons CO_2e. Amortized over 30 years, the value is 45 metric tons per year.

Operation-Period GHG Emissions

Fuel combustion in motor vehicles used during routine inspection, maintenance and testing of the Proposed Project Substation and Subtransmission Lines would be a source of GHG emissions during operation of the Proposed Project. GHG emissions from these motor vehicles were calculated by applying GHG emission factors to the estimated distances traveled annually for these activities. New circuit breakers installed at the Proposed Substation, the Alder Substation and the Etiwanda Substation and gas switches installed in the Proposed Distribution Getaways would be insulated with SF_6. Leakage of SF_6 from the circuit breakers during operation of the Proposed Project would also generate GHG emissions. GHG emissions from SF_6 leakage were calculated by multiplying the amount of SF_6 contained in new circuit breakers and gas switches by the estimated annual leakage rate. The estimated annual emissions of greenhouse gases from the operational activities are 15 metric tons CO_2e, primarily from SF_6 leakage (please see Appendix C, Air Quality Calculations, for details).

The total of amortized construction emissions and annual operational emissions is 60 metric tons CO_2e per year. This estimate is much lower than the 10,000 metric ton SCAQMD threshold or the 7,000 metric ton draft CARB recommendation. Since GHG emissions from the Proposed Project would be well below the SCAQMD threshold and draft CARB recommendation, the Proposed Project is not expected to have a significant impact from GHG emissions.

4.7.5 Alternative Substation Site

Construction and operation of the Alternative Substation site would require essentially the same construction equipment and motor vehicle usage as construction of the Proposed Substation site, because the design of the Alternative Substation site would be essentially the same as the design of the Proposed Substation site. Therefore, GHG emissions during construction and operation of the Alternative Substation site would be similar to those of the Proposed Substation site. Since construction and operation of the Alternative Substation site would have similar impacts as the Proposed Substation site, impacts would be less than significant.

4.7.6 Alternative Subtransmission Source Line Routes

Construction and operation of the Alternative Subtransmission Source Line Routes would require essentially the same construction equipment and motor vehicle usage as construction and operation of the Proposed Subtransmission Source Line Routes, because the Alternative Subtransmission Source Line Routes are similar in length and only slightly longer than the Proposed Subtransmission Source Line Routes. Therefore, GHG emissions during construction and operation of the Alternative Subtransmission Source Line Routes would be similar to those of the Proposed Subtransmission Source Line Routes. Since construction and operation of the Alternative Subtransmission Source Line Routes would have similar impacts as the Proposed Subtransmission Source Line Routes, impacts would be less than significant.

4.7.7 References

Duane Baker, Director of Management Services, San Bernardino Associated Governments (SANBAG). 2010. Personal communication August 2, 2010.

California Air Resources Board (CARB). 2010. Senate Bill 375 – Regional Targets. [online] http://www.arb.ca.gov/cc/sb375/sb375.htm [cited June 2010].

California Natural Resources Agency. 2009. Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. [online] http://ceres.ca.gov/ceqa/guidelines/ [cited June 2009].

City Council Action Report. 2010. Adopt a Resolution for a Memorandum of Understanding with SANBAG for the Regional Greenhouse Gas Inventory Reduction Plan and Environmental Impact Report. [online]

http://novus.fontana.org/Bluesheet.aspx?ItemID=478&MeetingID=141 [cited August 2010].

Office of the Attorney General. 2007. Settlement Agreement (Petitioner, the People of the State of California, acting by and through Attorney General Edmund G. Brown Jr. and Respondents, the County of San Bernardino and San Bernardino County Board of Supervisors in San Bernardino County Superior Court Case No. CIVSS 700329). [online] http://ag.ca.gov/cms_pdfs/press/2007-08-21_San_Bernardino_settlement_agreement.pdf [cited July 2010].

SCAQMD. 2009. CEQA Handbook webpage. [online] http://www.aqmd.gov/ceqa/hdbk.html [cited July 2009].

San Bernardino County. 2010. 2010 General Plan Annual Report. [online] http://www1.sbcounty.gov/landuseservices/general_plan/Annual_Reports/2010GPAnnualReport-Final.pdf [cited July 2010].

4.8 Hazards and Hazardous Materials

This section describes the hazards and hazardous materials in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

4.8.1 Environmental Setting

Hazardous Waste

An Environmental Data Resources, Inc. (EDR) Radius Map Report with GeoCheck, a Certified Sanborn Map Report, and a Historial Topographic Map Report for the Proposed Substation site (EDR, 2010a, 2010b, 2010c) were reviewed. An EDR Radius Map Report with GeoCheck for the Proposed Subtransmission Source Line Routes (EDR. 2010d) was also reviewed (please see Appendix E for more information). The review of the EDR reports indicated that, based on the available public records searched, no evidence of potential environmental concerns was identified for the Proposed Project.

Sampling and chemical analysis of soils at the Proposed Substation site have been conducted (TDBU, 2010; please see Appendix E, Geotechnical Report). The soil samples were analyzed for total petroleum hydrocarbons (TPH), California Code of Regulations (CCR) Title 22 California Assessment Manual (CAM) 17 Metals, and polychlorinated biphenyls (PCBs). The analytical results showed that TPH and PCBs were not detected in the soil samples. CCR Title 22/CAM 17 metals were detected, but were well below the Total Threshold Limit Concentration (TTLC) for hazardous waste classification.

Emergency Response

San Bernardino County has developed both an Operational Area Emergency Operations Plan and an Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan to respond to a number of natural and man-made disasters (SBCFD, 2005). The Office of Emergency Services (County OES), a Division of the San Bernardino County Fire Department (SBCFD) is responsible for disaster planning and emergency management coordination throughout the San Bernardino County Operational Area (OA) by functioning as the Lead Agency for the OA. While County OES does not directly manage field operations, it ensures coordination of disaster response and recovery efforts through day-to-day program management and during a disaster or emergency. Emergency response services within the Proposed Project are provided by the cities of Fontana, Rialto, and Rancho Cucamonga. Additional detail regarding fire protection services provided in San Bernardino County is provided in Section 4.14, Public Services.

Wildland Fires

Fire protection throughout the areas surrounding the Proposed Project is provided by SBCFD as well as the local jurisdictional fire departments for the cities of Fontana, Rialto, and Rancho Cucamonga.

The City of Fontana Fire Department (FFD) services the Fontana Fire Protection District, which includes Fontana's city limits and the unincorporated County areas within the

City's sphere of influence. The Proposed Substation site and the Proposed Etiwanda Subtransmission Source Line Route, including the Proposed Telecommunication Facilities, would be served by the FFD, except for the portion within the City of Rancho Cucamonga. The FFD provides the following services: fire prevention, emergency services, and hazardous material response. The FFD offers contracted emergency and administrative services through the SBCFD (City of Fontana, 2010).

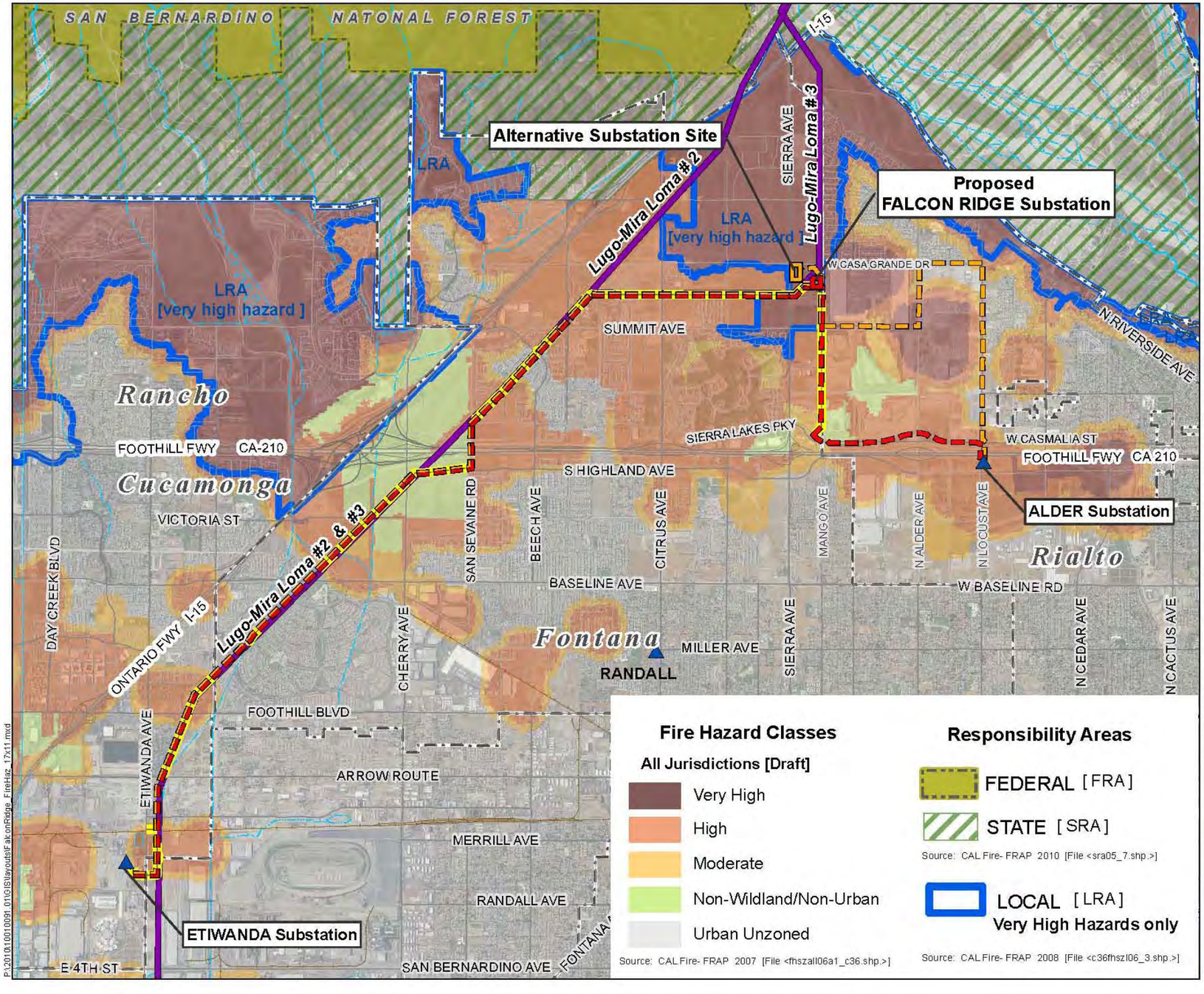
The City of Rialto Fire Department (RFD) services the City of Rialto with fire prevention activities, hazardous materials and technical rescue response capabilities, and disaster preparedness programs. The Proposed Alder Subtransmission Source Line Route, including the Proposed Telecommunication Facilities, would be served by the RFD, except for the portion within the City of Fontana (City of Rialto, 2010a).

The City of Rancho Cucamonga Fire Department (RCFD) services the City of Rancho Cucamonga with fire protection and emergency medical services, as well as other diverse emergency preparedness and response programs. The portion of the Proposed Etiwanda Subtransmission Source Line Route, including the Proposed Telecommunication Facilities, within the City of Rancho Cucamonga would be served by the RCFD (City of Rancho Cucamonga, 2010).

The Proposed Substation site and and portions of the Proposed Subtransmission Source Line Routes closest to the Proposed Substation site (0.7 mile total length) are classified as very high fire hazard areas (CAL FIRE, 2007). However, the majority of the Proposed Subtransmission Source Line Routes are classified as either moderate to high fire hazard, non-wildland/non-urban, or urban unzoned (CAL FIRE, 2007). Figure 4.8-1, Fire Hazard Severity Zones, presents the five hazard classes found in the vicinity of the Proposed Project.

Airports and Airstrips

The Rialto Municipal Airport (publically owned) is a general aviation airport located approximately 0.5 miles to the south of the Alder Substation and approximately 2 miles south-southeast of the Proposed Substation site. The Rialto Municipal Airport is used by privately operated and chartered aircraft; it is not used by commercial airlines (Scanlan, 2010). The Rialto Municipal Airport was approved for closure by Congress in 2005 and the City of Rialto has since initiated the process to close the Rialto Municipal Airport (City of Rialto, 2010b). Although the airport was expected to be officially closed in late 2010 or early 2011 (City of Rialto, 2010b), the Rialto Municipal Airport is currently open and the airport is projected to be closed within the next five to 10 years (2015-2020) (Scanlan, 2010). No other public or private airports, air strips or helipads were



Falcon Ridge Substation Project

Figure 4.8-1

Fire Hazard Severity Zones

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**
- Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

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identified within 2 miles of the Proposed Project.

Additional airports, airstrips and helipads are located within 10 miles of one or more components of the Proposed Project. Norton Air Force Base is located approximately 9.1 miles southeast of the Alder Substation, Cable Airport (privately owned) is located approximately 9.3 miles west of the Proposed Etiwanda Subtransmission Source Line Route, and the Chino Airport (publicly owned) is located approximately 9.6 miles southwest of the Etiwanda Substation. The nearest commercial airport is Ontario International Airport, located approximately 3.8 miles southwest of the Etiwanda Substation (Cable Airport; FltPlan.com, 2010; Google Earth, 2008; San Bernardino Airports). The Fontana Police Heliport is located approximately 2.4 miles south of the Proposed Alder Subtransmission Source Line Route, Kaiser Hospital Heliport is located approximately 4.5 miles south of the Proposed Alder Subtransmission Source Line Route, and Arrowhead Regional Medical Center Heliport is located approximately 5.4 miles southeast of the Alder Substation.

Schools

There are six schools located within 0.25 mile of the Proposed Project (Google Earth, 2008; Fontana Unified School District, 2010):

- Heritage Intermediate School, located at 13766 South Heritage Circle, Fontana, approximately 0.02 mile southeast of the Proposed Etiwanda Subtransmission Source Line Route
- West Heritage Elementary School, located at 13690 West Constitution Way, Fontana, approximately 0.22 mile southeast of the Proposed Etiwanda Subtransmission Source Line Route
- Sierra Lakes Elementary School, located at 5740 Avenal Place, Fontana, approximately 0.25 mile south of the Proposed Etiwanda Subtransmission Source Line Route
- Kucera Middle School, located at 2140 West Buena Vista Drive, Rialto approximately 0.23 mile north of the Alternative Alder Subtransmission Source Line Route B
- Wilmer Amina Carter High School, located at 2630 North Linden Avenue, Rialto, approximately 0.25 mile east of the Alternative Alder Subtransmission Source Line Route B
- Perdew Elementary School, 13051 Miller Avenue, Etiwanda, approximately 0.25 mile northwest of the Proposed Etiwanda Subtransmission Source Line Route

These schools, and several other schools located more than 0.25 mile from the Proposed Project, are shown on Figure 4.14-2, Schools in the Vicinity of the Proposed Project.

Four public or private preschool/day-care centers were identified within 0.25 mile of the Proposed Project (Google Earth, 2008):

- A Brighter Beginning Preschool and Child Care Center, located at 13597 Sherman Place, Fontana, approximately 0.14 mile northwest of the Proposed Etiwanda Subtransmission Source Line Route
- Water of Life Preschool, located at 7325 East Avenue, Fontana, approximately 0.10 mile northwest of the Proposed Etiwanda Subtransmission Source Line Route
- Kinder Care Learning Center, located at 7370 West Liberty Parkway, Fontana, approximately 0.07 mile northwest of the Proposed Etiwanda Subtransmission Source Line Route
- Moore Family Home Daycare, located at 7782 McKinley Court, Fontana, approximately 0.22 mile southeast of the Proposed Etiwanda Subtransmission Source Line Route

No other public or private preschool/day-care centers were identified within 0.25 mile of the Proposed Project (Google Earth, 2008). Additional detail regarding schools in San Bernardino County is provided in Section 4.14, Public Services.

4.8.2 Regulatory Setting

Federal National Priorities List (40 Code of Federal Regulations Part 300)

The U.S. Environmental Protection Agency (EPA) maintains a database of sites that are included on the National Priorities List (NPL). The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation and remediation. Sites are listed on the NPL upon completion of Hazard Ranking System screening, followed by consideration of public comments on proposed listings.

Federal Resource Conservation and Recovery Act (40 Code of Federal Regulations Parts 239 - 282)

The federal Resource Conservation and Recovery Act (RCRA) regulates hazardous waste from the time that the waste is generated through its management, storage, transport, treatment, and final disposal. The EPA has authorized the California Department of Toxic Substance Control to administer the RCRA program in California.

Federal Hazardous Materials Regulations (49 Code of Federal Regulations Parts 171 - 180)

The Federal Hazardous Materials Regulations (49 United States Code [USC] 1501 et seq.) identify the required shipping papers, package marking, labeling, transport vehicle

placarding, training, and registrations applicable to the shipment and transportation of hazardous materials.

Clean Water Act (33 USC Section 1251 et seq.)

The Clean Water Act was enacted to restore and maintain the chemical, physical, and biological integrity of the nation's waters by regulating point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. This includes the creation of a system, the National Pollutant Discharge Elimination System (NPDES), which requires states to establish discharge standards specific to water bodies and regulates storm water discharge from construction sites through the implementation of a Storm Water Pollution Prevention Plan (SWPPP).

Spill Prevention, Control, and Countermeasure Rule (40 Code of Federal Regulations Part 112)

The federal Spill Prevention, Control, and Countermeasure Rule (40 Code of Federal Regulations 112) was enacted to require response and cleanup after a spill occurs and prevent discharge of oil into navigable waters of the United States or adjoining shorelines. Facilities subject to the rule must prepare and implement a plan called a Spill Prevention, Control and Countermeasure (SPCC) Plan.

Porter-Cologne Water Quality Act (California Water Code Section 13000 et seq)

The Porter-Cologne Water Quality Act is a state law that provides a comprehensive water quality management system for the protection of California waters. Porter-Cologne designated the State Water Resources Control Board as the ultimate authority over state water rights and water quality policy, and also established nine Regional Water Quality Control Boards (RWQCB) to oversee water quality on a day-to-day basis at the local/regional level. The RWQCBs have the responsibility of granting NPDES permits for storm water runoff from construction sites.

CPUC G.O. 95 and CPUC G.O. 165

These General Orders by the California Public Utilities Commission (CPUC) specify construction, operation, and maintenance requirements for electrical facilities.

California Code of Regulations

The CCR is a catalog of state laws and regulations adopted by state agencies, including:

- CCR Title 8, Section 2700 et seq., High Voltage Electrical Safety Orders, establishes essential requirements and minimum standards for installation, operation, and maintenance of electrical equipment to provide practical safety and freedom from danger.

- CCR Title 14, Section 1250-1258, Fire Prevention Standards for Electric Utilities, provides specific exemptions from electric pole and tower firebreak and electric conductor clearance standards, and specifies when and where standards apply.

California Health and Safety Code Section 25501

California law defines a hazardous material as any material that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a present or potential hazard to human health and safety or to the environment if released in the workplace or the environment (California Health and Safety Code Section 25501). A hazardous waste is defined as a discarded material of any form (e.g., solid, liquid, gas) that may pose a present or potential hazard to human health and safety or to the environment when improperly treated, stored, transported, disposed of, or otherwise managed (California Health and Safety Code Section 25117).

California Resource Conservation Recovery Act (22 CCR Division 4.5)

California's RCRA hazardous waste program is more stringent than the federal program, and certain wastes that would not qualify as hazardous based on federal standards may still qualify as hazardous waste according to California standards (termed non-RCRA hazardous waste). Handling and storage of fuels, flammable materials, and common construction-related hazardous materials are governed by the California Occupational Safety and Health Administration.

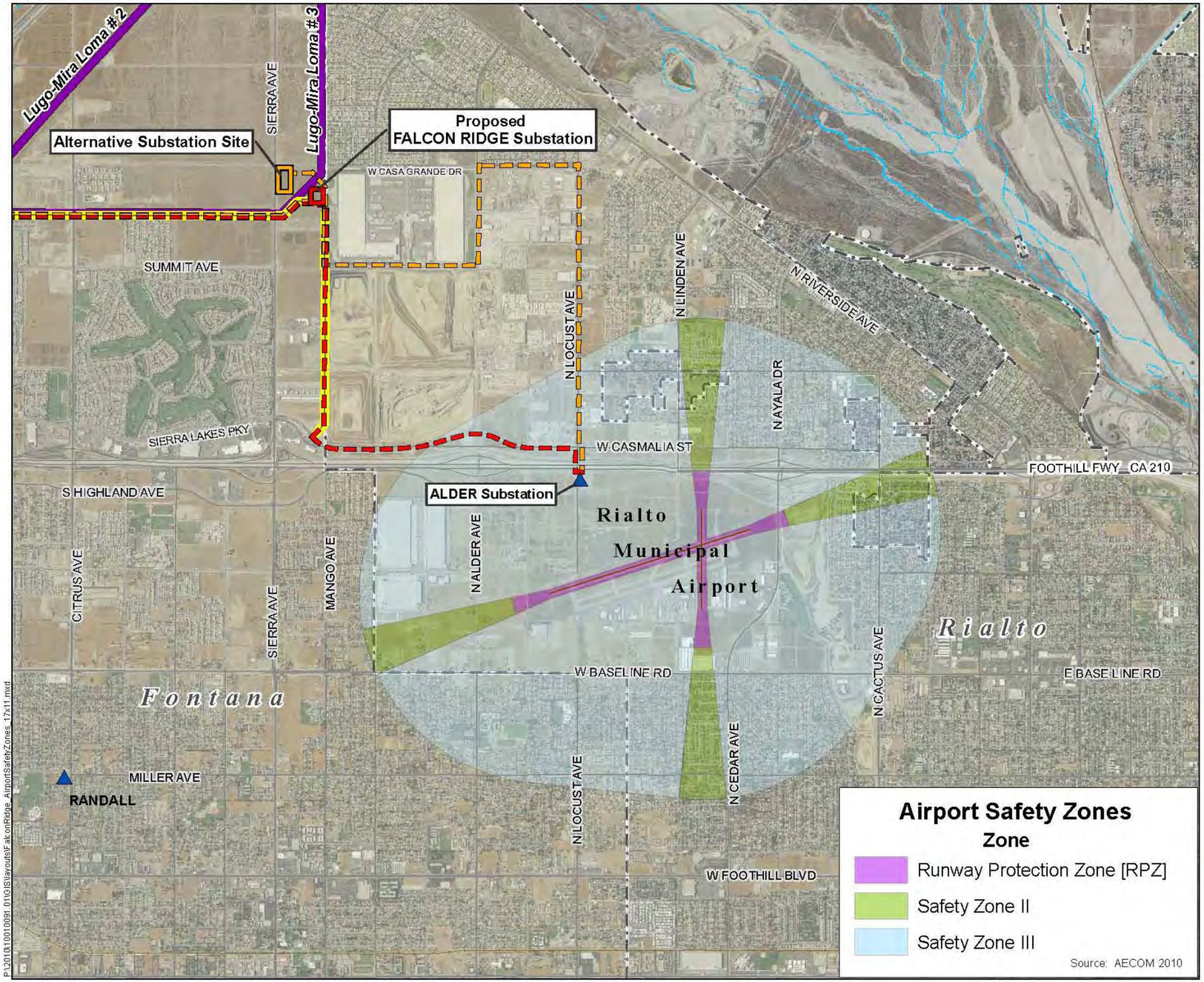
California Public Resources Code

California Public Resources Code Sections 4292 and 4293 specify requirements related to vegetation management in transmission line corridors.

Rialto Airport Comprehensive Land Use Plan

The Comprehensive Land Use Plan (CLUP) for the Rialto Municipal Airport was prepared for the County of San Bernardino Airport Land Use Commission (County of San Bernardino, 1991). The CLUP identifies areas, located outside of the airport proper, that are influenced by the operations of the airport. Planning boundaries are established on the perimeters of these areas by applying the specific operational criteria of the airport to various planning models that have been primarily developed by the Federal Aviation Administration (FAA). The CLUP identifies various “safety zones” surrounding the airport and provides guidelines for land uses within these zones to protect people in the vicinity of the airport. These safety zones are shown in Figure 4.8-2, Rialto Municipal Airport Safety Zones.

The Runway Protection Zone (RPZ) extends out 1,000 feet from the end of each runway, along the runway centerline. It is 250 feet wide at the end of the runway and 450 feet wide at 1,000 feet from the end of the runway. Land uses generally allowed within the RPZ are roads, rail lines, open space and water, agricultural row crops, and pastures and grazing.



Falcon Ridge Substation Project

Figure 4.8-2

Rialto Municipal Airport Safety Zones

Project Components

Substation Site — Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**
- Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 1,000 5,000 Feet

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Safety Zone II extends 4,000 feet from the end of the RPZ. It is 450 feet wide at the end of the RPZ and 1,250 feet wide 4,000 feet from the end of the RPZ. Land uses that are generally allowed within Safety Zone II are single family detached residences; manufacturing, except for chemicals, petroleum refining and rubber and plastics; transportation, communications and utilities, except for passenger terminals, landfills and hazardous waste facilities; trade, business and office services, except for service stations, hotels, motels and campgrounds; government services; cemeteries; recreation facilities, except for parks and indoor recreation; and agriculture and mining.

The Alder Substation and approximately 0.9 mile of the Proposed Alder Subtransmission Source Line Route and Telecommunication Facilities closest to the Alder Substation would be located in Safety Zone III. This zone extends 5,000 feet from the end of each runway in all directions. Most land uses, including those associated with the Proposed Project, are allowed within Safety Zone III, except for uses that are associated with large assemblages of people, such as hospitals, stadiums and arenas, auditoriums and concert halls, outdoor amphitheaters and music shells, regional shopping centers, and jails and detention centers.

There are also limits on the height of objects that could obstruct air navigation, which depend on the distance and direction of the object to the airport runways. For objects that are not aligned with airport runways, the height is limited to 150 feet for objects within 5,000 feet from the end of each runway. Beyond 5,000 feet, out to a total distance of 9,000 feet, the height is limited to the distance beyond 5,000 feet, divided by 20, plus 150 feet. Based on preliminary engineering the Proposed Project is within these height limits.

4.8.3 Significance Criteria

The significance criteria for assessing the impacts to hazards and hazardous materials come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- 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 create a significant hazard to the public or the environment

- For a project located within an airport land use plan or, where such a plan has not been adopted, within 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

- For a project located in the vicinity of a private airstrip would the project result in a safety hazard for people residing or working in the project area

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

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

4.8.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

Would the project 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?

Based on the EDR reports for the Proposed Project (see Appendix E), the Proposed Project is not located on a known hazardous waste site. As a result, there would be no impact to the public or the environment from being located on a site included on a list of hazardous materials sites.

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?

There are no private airstrips within 2 miles of the Proposed Project. Therefore, there would be no safety hazard for personnel during construction or operation of the Proposed Project, and no impact to people residing or working in the Proposed Project area.

Operation of the Proposed Project would not result in impacts for the following CEQA criteria:

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?

There are seven schools and four preschool/day-care centers within 0.25 mile of the Proposed Project. The seven schools and four preschool/day-care centers are also within 0.25 mile of the Proposed Subtransmission Source Line Routes and the Proposed Telecommunication Facilities. However, no schools or preschool/day-care centers are within 0.25 mile of the Proposed Substation site. Since operation of the Proposed Project

would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste, there would be no impacts to existing or proposed schools within 0.25 mile of the Proposed Project during operation. Impacts due to hazardous emissions or use of hazardous or acutely hazardous materials, substances, or waste would have no impact on existing or proposed schools.

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

Operation of the Proposed Project would not affect emergency plans or evacuation plans. Electrical facilities are typically considered critical facilities in emergency response plans, and every effort would be made by SCE to maintain electrical service during emergencies. As a result, operation of the Proposed Project would have no impact to emergency plans.

Construction Impacts

Construction of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

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

Construction of the Proposed Project would require the use of fuel and lubricants inside vehicles and equipment. A project specific health and safety plan would be prepared and made available once a contractor is procured for the construction of the Proposed Project. The plan should include, and not be limited to, information on the appropriate personal protective equipment to be used during construction. All transport of hazardous materials would be in compliance with applicable laws, rules and regulations, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations.

Construction of the Proposed Project would result in the generation of various waste materials that can be recycled and salvaged. Waste items and materials would be collected by construction crews and separated into roll-off boxes at the staging areas. All waste materials that are not recycled would be characterized by SCE in order to assure appropriate final disposal. Non-hazardous waste would be transported to local waste management facilities. When possible, waste materials from the construction of the Proposed Project would be delivered to the closest waste management facility, which is located within one mile of the Proposed Substation site (see Section 3.6, Waste Management).

Prior to removal of existing poles, existing subtransmission lines, distribution lines and telecommunication lines (where applicable) will be transferred to the new poles. All remaining subtransmission, distribution and telecommunication lines that are not reused by SCE would be removed and delivered to a suitable facility for recycling. Depending on the type, condition and original chemical treatment, the removed wood poles could be

reused by SCE for other purposes, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a RWQCB-certified municipal landfill.

Soil excavated for the Proposed Project would either be used as fill or disposed off site at an appropriately licensed facility. Sampling and chemical analysis of soils at the Proposed Substation site showed that TPH and PCBs were not detected in the soil samples, and that CCR Title 22/CAM 17 metals were detected, but were well below the TTLC for hazardous waste classification. Therefore, contaminated soil is not expected to be encountered at the Proposed Substation site.

Although there is a very low potential for contaminated soil to be encountered in the areas of the other components of the Proposed Project (Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities, Proposed Distribution Getaways, and proposed modifications at the Etiwanda and Alder Substations), in the event that contaminated soil is encountered during excavation activities, the soil would be segregated and soil samples would be collected and analyzed to determine appropriate disposal/treatment options. If chemicals are detected in the soil samples at concentrations above action levels, SCE would decide whether to remove the contaminated soil, or modify the design of the Proposed Project to the extent necessary to avoid contaminated soil. Action levels refer to chemical-specific concentration thresholds in environmental media that, if exceeded, trigger some form of regulatory oversight. Therefore, impact to the public or the environment through the routine transport, use or disposal of hazardous materials would be less than significant.

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?

Construction of the Proposed Project would require the limited use of hazardous materials, such as fuels, lubricants, and cleaning solvents. Due to the low volume and low toxicity of the hazardous materials to be used during the construction of the Proposed Project, the potential for environmental impacts from hazardous material incidents is less than significant. All hazardous materials would be stored, handled and used in accordance with applicable regulations, and Material Safety Data Sheets would be made available at the construction site for all crew workers.

The most likely incidents involving these hazardous materials are associated with minor spills or drips. Impacts from such incidents would be avoided by thoroughly cleaning up minor spills as soon as they occur. A site-specific construction SWPPP (please see Section 3.2.1, Storm Water Pollution Prevention Plan, for more detail) would be prepared for the Proposed Project and would be implemented to ensure quick response to any spills to avoid impacts to the environment. The SWPPP would provide the locations for storage of hazardous materials during construction, as well as protective measures, notifications, and cleanup requirements for any incidental spills or other potential releases of hazardous materials. Any impacts that would result from an accidental release would be addressed through the SWPPP.

In addition, implementation of the Worker Environmental Awareness Plan (WEAP), as described in Section 3.9, Worker Environmental Awareness Training, would provide site personnel with instruction on the Proposed Project SWPPP and site-specific Best Management Practices. It would also provide instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil contamination.

During construction activities for the Proposed Project, the potential for encountering and damaging subsurface utilities (e.g., a natural gas line) or structures (e.g., an underground storage tank) exists, which could result in a release of a hazardous material. Such incidents would be avoided by thoroughly screening for subsurface structures prior to starting subsurface work. Screening activities would include use of Dig Alert, visual observations, and the use of buried line locating equipment.

Therefore, the project would not 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, and impacts are less than significant.

Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

There are seven schools and four preschool/day-care centers located within 0.25 mile of the Proposed Project. The minimal quantities of hazardous materials that would be used during construction make it unlikely that schools or preschools/day care centers would be impacted by an accidental release of hazardous materials. The impacts would be less than significant.

For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

There is one public airport (Rialto Municipal Airport) within 2 miles of the Proposed Project. The Rialto Municipal Airport is located approximately 0.5 miles to the south of the Alder Substation and approximately 2 miles south-southeast of the Proposed Substation site. As discussed in Section 4.8-2, Regulatory Setting, the CLUP for the Rialto Municipal Airport identifies various “safety zones” surrounding the airport and provides guidelines for land uses within these zones to protect people within the vicinity of the airport. None of the Proposed Project components would be located in the RPZ or in Safety Zone II. The Alder Substation and approximately 0.9 mile of the Proposed Alder Subtransmission Source Line Route and Telecommunication Facilities closest to the Alder Substation would be located in Safety Zone III.

Most land uses, including the Proposed Project, are allowed within Safety Zone III, except for uses that are associated with large assemblages of people, such as hospitals, stadiums and arenas, auditoriums and concert halls, outdoor amphitheaters and music shells, regional shopping centers, and jails and detention centers. The construction of the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication

Facilities and construction of modifications at the Alder Substation would not require large assemblies of people (see Table 3.6, Construction Equipment and Workforce Estimates).

Furthermore, as discussed in Section 4.8-2, Regulatory Setting, there are limits on the height of objects that could obstruct air navigation, which depend on the distance and direction of the object to the airport runways. For objects that are not aligned with airport runways, the height is limited to 150 feet for objects within 5,000 feet from the end of each runway. Beyond 5,000 feet, out to a total distance of 9,000 feet, the height is limited to the distance beyond 5,000 feet, divided by 20, plus 150 feet. Neither the Alder Substation nor the Proposed Alder Subtransmission Source Line Route would be aligned with the runways at the Rialto Municipal Airport. Therefore, they would not be considered obstructions to air navigation. The maximum height of the Proposed Alder Subtransmission Source Line Route facilities is approximately 100 feet, and construction cranes are not anticipated to exceed 150 feet in height during installation of the Proposed Alder Subtransmission Source Line Route facilities. In addition this height is less than the 150-foot limit which would be considered an obstruction to air navigation, construction of the Proposed Project would not create obstructions to air navigation.

Thus, construction of the Proposed Project within 2 miles of a public airport or public use airport would be consistent with the limitations for Safety Zone III and would not result in a safety hazard for people residing or working in the project area. Impacts would be less than significant.

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

In places where the components of the Proposed Project span a road or may require a lane closure, construction activities would be coordinated with the local jurisdiction so as not to cause closure of any emergency access route. Flaggers may briefly hold traffic back for construction equipment, but emergency vehicles would be provided access even in the event of temporary road closures. Therefore, emergency access would not be impacted by construction of the Proposed Project because all streets would remain open to emergency vehicles at all times during these activities. As a result, construction activities would not physically interfere with or impair the implementation of adopted emergency response and evacuation plans. The impacts would be less than significant.

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?

The Proposed Substation site and portions of the Proposed Alder Subtransmission Source Line Route and the Etiwanda Subtransmission Line Route in the vicinity of the Proposed Substation site, and the Proposed Telecommunication Facilities, would be built in an area mapped as Very High Fire Hazard. Other portions of the Proposed Subtransmission Source Line Routes are in areas mapped as moderate to high fire hazard areas and areas

mapped as non-wildland/non-urban or urban unzoned areas (see Figure 4.8, Fire Hazard Severity Zones).

SCE has standard protocols that are implemented when the National Weather Service issues a Red Flag Warning. These protocols include measures to address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements. Trained fire suppression personnel and fire suppression equipment would be established at key locations, and the personnel and equipment would be capable of responding to a fire within 15 minutes of notification. Portable communication devices (e.g., radio or mobile telephones) would be available to construction personnel. In addition, SCE participates with CAL FIRE, the California OES, the U.S. Forest Service and various city and county fire agencies in the Red Flag Fire Prevention Program and complies with California Public Resources Code Sections 4292 and 4293 related to vegetation management in transmission line corridors.

In addition to these protective measures, the portions of the Proposed Project located within the moderate to very high fire hazard areas, which include the Proposed Substation site parcel, the Proposed Distribution Getaways and approximately 7.5 miles of the Proposed Subtransmission Source Line Routes, would be grubbed of vegetation and graded prior to the staging of equipment, minimizing the potential for a construction vehicle to start a fire. During grubbing and grading, SCE's standard fire-prevention protocols, including the use of spark arresters on construction equipment, would minimize the potential for these activities to ignite fires. The remaining portions of the Proposed Project are classified as non-wildland/non-urban or urban unzoned areas. As a result, construction of the Proposed Project would have a less than significant impact to risk of loss, injury or death involving wildland fires.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

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

During operation of the Proposed Project, routine inspections and emergency repair would require the use of fuel and lubricants inside vehicles and equipment. All transport of hazardous materials would be in compliance with applicable laws, rules and regulations, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations. As a result, impacts due to the routine transport, use, or disposal of hazardous materials would be less than significant.

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?

The Proposed Substation would be equipped with transformer banks that contain mineral oil that could leak or spill if the transformers were damaged from a seismic event, fire, or other accident scenario. To minimize potential impacts in the event a transformer is damaged, the design of the Proposed Substation would provide secondary containment and/or diversionary structures or equipment to prevent discharge of an oil spill, as described in the SPCC Plan that would be prepared for the Proposed Project during final design (please see Section 3.1.1, Falcon Ridge Substation Description, subsection Substation Drainage and Ground Surface Improvement, for more information on SPCC requirements). An SPCC Plan would be prepared and implemented by SCE before any oil-containing equipment is brought to the Proposed Substation site. Impacts would be less than significant.

For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

There is one public airport (Rialto Municipal Airport) within 2 miles of the Proposed Project. The Rialto Municipal Airport is located approximately 0.5 mile to the south of the Alder Substation and approximately 2 miles south-southeast of the Proposed Substation site. As discussed in Section 4.8-2, Regulatory Setting, the CLUP for the Rialto Municipal Airport identifies various "safety zones" surrounding the airport and provides guidelines for land uses within these zones to protect people within the vicinity of the airport. None of the Proposed Project components would be located in the RPZ or in Safety Zone II. The Alder Substation and approximately 0.9 mile of the Proposed Alder Subtransmission Source Line Route and Telecommunication Facilities closest to the Alder Substation would be located in Safety Zone III.

Most land uses, including the Proposed Project, are allowed within Safety Zone III, except for uses that are associated with large assemblages of people, such as hospitals, stadiums and arenas, auditoriums and concert halls, outdoor amphitheaters and music shells, regional shopping centers, and jails and detention centers. During operation of the Proposed Project, the Proposed Substation would be unattended and remotely operated. Normal operation of the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be controlled remotely through SCE control systems. Thus, operation of the Proposed Project would not require large assemblies of people and would therefore be consistent with the limitations for Safety Zone III.

As discussed in Section 4.8-2, there are limits on the height of objects that could obstruct air navigation, which depend on the distance and direction of the object to the airport runways. For objects that are not aligned with airport runways, the height is limited to 150 feet for objects within 5,000 feet from the end of each runway. Beyond 5,000 feet, out to a total distance of 9,000 feet, the height is limited to the distance beyond 5,000

feet, divided by 20, plus 150 feet. Neither the Alder Substation nor the Proposed Alder Subtransmission Source Line Route would be aligned with the runways at the Rialto Municipal Airport. Therefore, they would not be considered obstructions to air navigation. The maximum height of the Proposed Alder Subtransmission Source Line Route facilities is approximately 100 feet, therefore, the height would be less than the 150-foot obstruction limit.

Therefore, operation of the Proposed Project within 2 miles of a public airport or public use airport would not result in a safety hazard for people residing or working in the project area. Impacts would be less than significant.

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?

The Proposed Project may pose a fire hazard if vegetation or other obstructions come into contact with energized electrical equipment. The Proposed Project would be constructed and maintained in a manner consistent with CPUC General Order 95 and CPUC General Order 165. Consistent with these and other applicable State and federal laws, SCE would maintain an area of cleared brush around the equipment, minimizing the potential for fire.

In addition, SCE participates with CAL FIRE, the California OES, the U.S. Forest Service and various city and county fire agencies in the Red Flag Fire Prevention Program and complies with California Public Resources Code Sections 4292 and 4293 related to vegetation management in transmission line corridors. As a result, operation of the Proposed Project would have a less than significant impact to risk of loss, injury or death involving wildland fires.

4.8.5 Alternative Substation Site

The Alternative Substation site is located directly adjacent to Sierra Avenue and just south of Casa Grande Avenue. As with the Proposed Substation site, the Alternative Substation site is classified as a very high fire hazard area. As a result, the impacts with respect to hazards and hazardous materials would be similar to those for the Proposed Project. The impacts would be less than significant.

4.8.6 Alternative Subtransmission Source Line Routes

The Alternative Alder Subtransmission Source Line Route B crosses areas that are different with respect to fire hazards and land uses from the areas crossed by the Proposed Alder Subtransmission Source Line Route. However, they are similar to the areas crossed by the Proposed Etiwanda Subtransmission Source Line Route. As a result, the impacts associated with hazards and hazardous materials would be similar to those identified for the Proposed Etiwanda Subtransmission Source Line Route. The impacts would be less than significant.

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4.9 Hydrology and Water Quality

This section describes hydrology and water quality in the area of the Proposed Project. The potential impacts of the Proposed Project and alternatives are also discussed.

4.9.1 Environmental Setting

Surface Water

The Proposed Project is located in the Chino Basin sub-watershed of the Middle Santa Ana River Watershed. The area has a typical Mediterranean climate with wet, cool winters and warm, dry summers. Most of the annual rainfall occurs during the month of January, with an average annual rainfall in Fontana of 14.77 inches (IDcide, 2010).

Surface topography in the Proposed Project area indicates that stormwater drains predominantly to the south. For the Proposed Substation site, surface water drains south over undeveloped land. The closest storm drain south of the Proposed Substation site and Proposed Distribution Getaways is the storm drain system at the western edge of the Mid-Valley Landfill. Stormwater from the Mid-Valley Landfill drains south into the San Bernardino County Flood Control District (SBCFCD) storm drain system in the City of Rialto. The storm drain system for the Mid-Valley Landfill area in Rialto includes a series of infiltration/detention basins before discharging into the Rialto Channel (City of Rialto, 2004). The Rialto Channel is a man-made channel that drains into Reach 4 of the Santa Ana River. The Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities are also located within the portion of the City of Rialto that drains into the Rialto Channel.

For the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities, located west of Sierra Avenue, stormwater is collected by the SBCFCD/Fontana storm drain system, which drains into the San Sevaine Creek and Etiwanda Creek drainage area. San Sevaine Creek and Etiwanda Creek are ephemeral storm drains that drain all lands west of Sierra Avenue in the City of Fontana and pass through a series of infiltration/detention basins before draining into Reach 3 of the Santa Ana River. The Santa Ana River and other surface waters from the Chino Basin sub-watershed drain into the Prado Flood Control Basin before continuing to the Pacific Ocean (City of Fontana, 2003; SARWQCB, 2008).

SBCFCD is responsible for the maintenance and operation of county-wide flood control facilities, which include debris dams, storm channels, and storm drains. The cities of Rialto, Fontana, and Rancho Cucamonga construct and maintain the local storm drains (within their respective jurisdictions) that feed into the SBCFCD's area-wide system.

The Middle Santa Ana River Watershed is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB). The SARWQCB's Water Quality Control Plan (Basin Plan) identifies beneficial uses for surface and ground water in the Santa Ana River Basin. The Basin Plan does not identify any beneficial uses for the Rialto Channel or San Sevaine Creek. However, the reach of East Etiwanda Creek,

located in the valley starting at the base of the foothills, has the following intermittent beneficial uses: Municipal and Domestic Supply, Groundwater Recharge (GWR), Water Contact Recreation (REC1), Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD). The Basin Plan identifies the following beneficial uses for Reach 3 of the Santa Ana River, from Prado Dam to Mission Boulevard in Riverside: Agricultural Supply, GWR, REC1, REC2, WARM, WILD, Rare, Threatened or Endangered Species Habitat, and Spawning, Reproduction and Development Habitat (SPWN). The Basin Plan identifies the following beneficial uses for Reach 4 of the Santa Ana River, from Mission Boulevard in Riverside to the San Jacinto Fault in San Bernardino: GWR, REC2, WARM, WILD and SPWN. The beneficial use of REC1 is listed for Reach 4, but it should be noted that access is prohibited in some portions by San Bernardino County (SARWQCB, 2008).

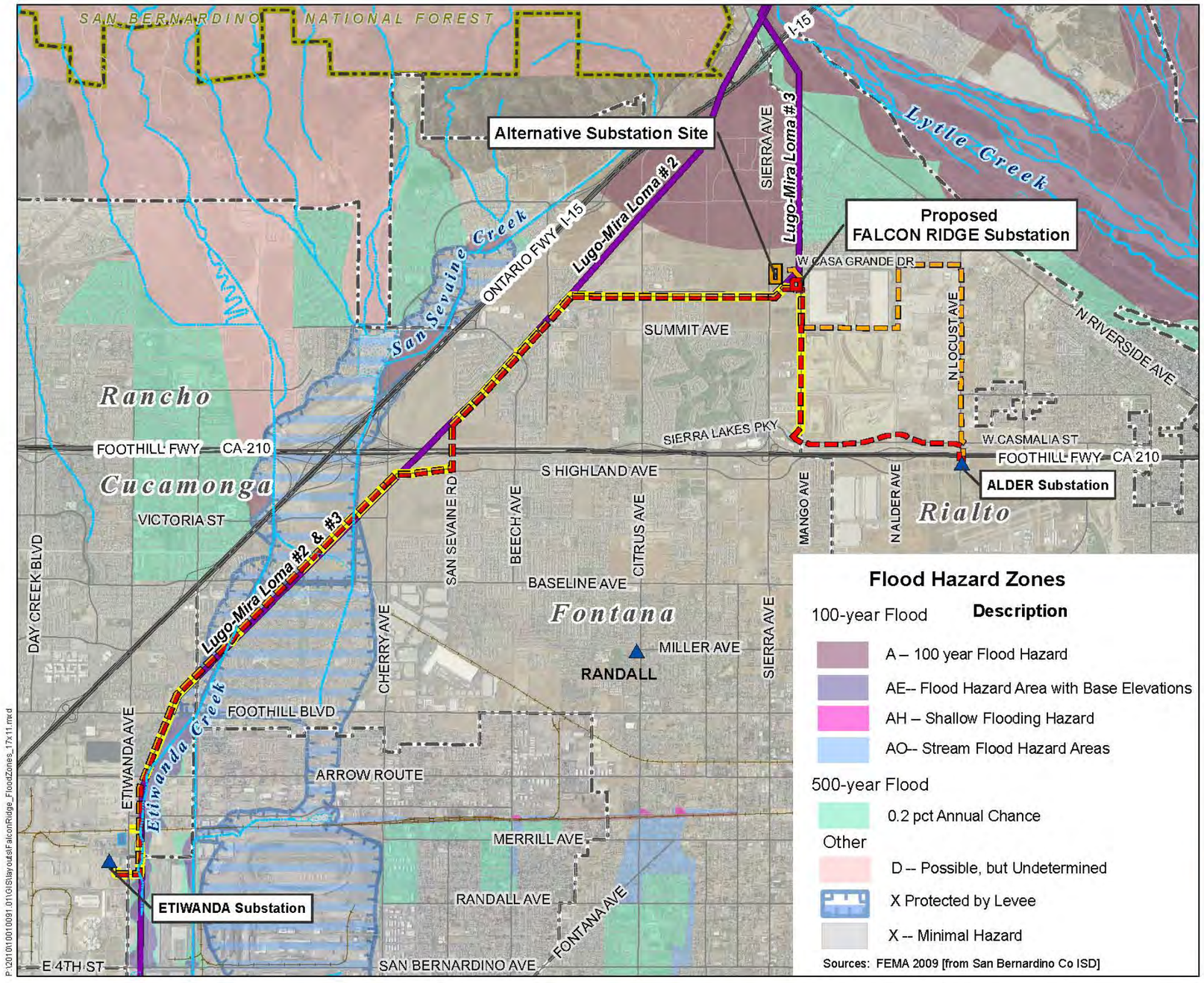
The Rialto Channel, San Sevaine Creek, Etiwanda Creek, and Reach 3 of the Santa Ana River are not on the 303(d) list of Impaired Water Bodies. Reach 4 of the Santa Ana River is on the 303(d) list for pathogens or bacterial contamination. Prado Park Lake is on the 303(d) list for nutrients (SARWQCB, 2008).

Floodplains

Flood zones for the 100-year and 500-year[1] flood are mapped in the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps. Regional flood control planning and facility construction are conducted by the SBCFCD. Based on the San Bernardino County flood zone maps, which incorporate FEMA data, the major floodplains in the vicinity of the Proposed Project are those associated with the San Sevaine/Etiwanda Creek (see Figure 4.9, Flood Hazards). The southern portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities between Victoria Street and Etiwanda Avenue are located in an area that includes both 100-year and 500-year flood zones. Part of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities (from approximately East Avenue to Cherry Avenue) are also located in an area protected by a levee, as shown on Figure 4.9, Flood Hazards. The Proposed Substation site and Proposed Distribution Getaways, the northern portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities, and the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities are not located within the 100-year or the 500-year flood zones.

Flooding can also occur from dam failure. This flooding is referred to as dam inundation. The State of California requires that dam inundation maps, which depict a best estimate of the extent of water flow in the event of dam failure, must be approved and maintained by the Office of Emergency Services. These maps have been compiled by San Bernardino County and incorporated into the County Land Use General Plan with Hazard

[1] A 100-year flood is calculated to be the level of floodwater expected to be equaled or exceeded every 100 years on average. A 100-year flood has a 1percent chance of being equaled or exceeded in any single year. A 500-year flood has a 0.2 percent chance of occurring in any given year.



Flood Hazard Zones

100-year Flood	Description
	A – 100 year Flood Hazard
	AE-- Flood Hazard Area with Base Elevations
	AH – Shallow Flooding Hazard
	AO-- Stream Flood Hazard Areas
500-year Flood	
	0.2 pct Annual Chance
Other	
	D -- Possible, but Undetermined
	X Protected by Levee
	X -- Minimal Hazard

Sources: FEMA 2009 [from San Bernardino Co ISD]

Falcon Ridge Substation Project

Figure 4.9

Flood Hazards

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**
- Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

N

0 0.5 1 2 Miles

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Overlays (San Bernardino County, 2005a). The Proposed Project is not located in an area with a risk from dam inundation.

Slightly different from water flooding, mudflows are flooding conditions where a river of liquid and flowing mud move on a surface of a normally dry land area. Mudflow risk is dependent on terrain, soil type and rainfall intensity. Mudflow risk is highest for burned areas that have been denuded due to a wildfire or areas immediately down-gradient of burned areas. Without vegetation and ground cover, rainfall can cause soil on steep slopes of burned areas to become saturated, liquefy and then flow down hills as a mudflow (State of California, 2010). The Proposed Project is located at least 2 miles from steep terrain.

Flooding or damage from a tsunami may occur in coastal areas including beaches, lagoons, bays, estuaries, tidal flats and river mouths. It is rare for a tsunami to penetrate more than one mile inland. The State of California has developed tsunami evacuation maps that delineate areas that are within the projected run-up height of tsunamis. The Proposed Project is not located in an area within the projected run-up height of a tsunami (State of California, 2007).

Groundwater

The Proposed Project is located in the South Coast Hydrological Region, Upper Santa Ana Valley Groundwater Basin. The Proposed Substation site and Distribution Getaways, the extreme eastern portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities, and the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities are located in the Rialto-Colton Groundwater Subbasin. The Rialto-Colton Subbasin is bounded by the San Gabriel Mountains on the north, the San Jacinto fault on the east, the Box Spring Mountains on the south, and the Rialto-Colton fault on the west (California Department of Water Resources, 2004).

The western portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities are located in the Chino-North Subbasin. The Chino-North Subbasin is bounded on the east by the Rialto-Colton fault, on the southeast by contact with impermeable strata forming the Jurupa Mountains and low divides connecting the exposures, on the south by contact with impermeable strata of the Puente Hills and by the Chino fault, on the northwest by the San Jose fault, and on the north by impermeable strata of the San Gabriel Mountains and by the Cucamonga fault (California Department of Water Resources, 2006).

Groundwater depths are approximately 300 feet below ground surface (bgs) beneath the Proposed and Alternative Substation sites and Proposed Distribution Getaways, between 400 feet to 600 feet bgs beneath the Proposed Etiwanda Subtransmission Source Line Route, and between 300 and 600 feet bgs beneath the Proposed Alder Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route (TDBU, 2010; Santa Ana Watershed Project Authority, 2010; Kleinfelder, 2007). These large differences in depth to groundwater are due to the Rialto-Colton fault, which is a barrier to groundwater flow along much of its length, especially in its northern reaches

where groundwater elevations can reach nearly 400 feet higher within the Rialto-Colton Subbasin than in the Chino Subbasin to the west (California Department of Water Resources, 2006).

The Rialto-Colton Subbasin groundwater is impacted with perchlorate and trichloroene from past industrial activities that occurred in the area immediately east and south east of the Proposed Substation site. The level of contamination from these compounds is above the State of California maximum contaminant level for drinking water (SARWQCB, 2006). The most serious ground water quality problems in the Chino Subbasin are high concentrations of dissolved solids and nitrate-nitrogen (California Department of Water Resources, 2006). The Chino Subbasin is also impacted with trichloroethene from past industrial activities that occurred in the areas of the Ontario Airport and the former Kaiser Steel site (Chino Basin Watermaster, 2009a). These areas are southwest and east, respectively, of the Etiwanda Substation.

4.9.2 Regulatory Setting

Clean Water Act

The Federal Clean Water Act (CWA), as amended by the Water Quality Act of 1987, regulates water quality in the United States. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. These waters include all navigable waters and tributaries thereto, and adjacent wetlands.

In 1972, the CWA was amended to specify that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. The EPA has authorized the Regional Water Quality Control Boards (RWQCB) to implement this program.

The CWA includes Sections 404 and 401 (33 United States Code 1251-1376). Under Section 404, the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into "waters of the United States." Under Section 404, the phrase "waters of the United States" includes wetland and non-wetland aquatic habitats within the jurisdictional extent of rivers and streams defined by the ordinary high water mark. Such discharges may result from navigational dredging, flood control channelization, levee construction, channel clearing, fill of wetlands for development, or other activities. These projects involve the removal or placement of soil, sediment, and other materials in or near water bodies and require CWA Section 404 permits from the USACE.

Under CWA Section 401, applicants for the CWA Section 404 permit or license for any activity which may result in a discharge into jurisdictional waters of the United States must obtain a water quality certification from the State that the proposed activity will comply with the State's water quality standards. The RWQCB implements the Section 401 Certification program.

California Porter-Cologne Water Quality Act

The California Porter-Cologne Water Quality Act provides a comprehensive water quality management system for the protection of California waters. Porter-Cologne designated the State Water Resources Control Board as the ultimate authority over State water rights and water quality policy, and also established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. The RWQCBs have the responsibility of granting NPDES permits for stormwater runoff from construction sites.

The State of California issued a new Construction General Permit (CGP) for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, effective July 1, 2010, and commonly known as the "2009 CGP." The 2009 CGP includes special provisions for Linear Underground/Overhead Projects (LUP), which include any cable line or wire for the transmission of electrical energy, any cable line or wire communications, and associated ancillary facilities including towers, poles, and substations. Because the Proposed Project is associated with a linear project, the LUP provisions apply.

In addition, since a LUP may be constructed within both developed and undeveloped locations and portions of LUPs may be constructed by different contractors, LUPs may be broken into logical permit sections. Sections may be determined based on portions of a project conducted by one contractor. Other situations may also occur, such as the time period in which the sections of a project will be constructed (e.g. project phases), for which separate permit coverage is possible. For projects that are broken into separate sections, a description of how each section relates to the overall project and the definition of the boundaries between sections shall be clearly stated. Where construction activities transverse or enter into different Regional Water Board jurisdictions, the project shall obtain permit coverage for each Regional Water Board area involved prior to the commencement of construction activities (SWRCB, 2009).

According to the 2009 CGP, one way that LUPs can be categorized into three risk types depends on the location, sediment risk and receiving water risk. As discussed in the construction impacts section that follows, an Individual Method risk assessment was performed for the Proposed Project and concluded that the Proposed Project location is a Type 1 LUP. Type 1 LUPs include those for which the risk assessment finds either: (1) sediment risk is low and receiving water risk is low; or (2) that sediment risk is medium and receiving water risk is low; (SWRCB, 2009). Type 1 LUPs are not currently subject to numeric effluent standards or required to develop Rain Event Action Plans (REAPs), but are required to implement best management practices for construction materials that could potentially be a threat to water quality if discharged (SWRCB, 2009).

County of San Bernardino

San Bernardino County Ordinance No. 4011 (Title 8: Development Code, Division 2 Land Use Zoning Districts and Allowed Land Uses, Chapter 82.14 Flood Plain Safety Overlay) requires that no structure be constructed, located, substantially improved, or graded in areas designated as floodways (defined as a channel of a river and adjacent 100-year flood zone areas) except upon approval of a plan which provides that the

proposed development will not result in any increase in flood levels during the occurrence of the 100-year flood discharge (American Legal Publishing Corporation, 2010).

SBCFCD requires an encroachment permit where work is proposed within the public right-of-way (ROW) easement. This includes aerial utilities. Encroachment permit applications associated with new developments that propose to discharge stormwater into District facilities must identify best management practices (BMPs) (NPDES requirements) to mitigate water quality impacts from the proposed project (San Bernardino County, 2007).

Cities of Fontana, Rialto and Rancho Cucamonga

The cities of Fontana, Rialto, and Rancho Cucamonga fall within the SBCFCD, which provides flood control facilities for its member cities. Water quality control mandates from the federal government under the NPDES require permits for stormwater discharges from municipal storm sewer systems. The SARWQCB Order Number R8-2010-0036, NPDES Permit No. CAS618036, requires post-construction BMPs to be implemented for new development and significant redevelopment, for both private and public agency projects. Water Quality Management Plans (WQMP) are required for new development projects that create 10,000 square feet or more of impervious surface. The SBCFCD is the primary permittee for this order. As co-permittees within the SARWQCB Basin Plan, the cities of Fontana, Rialto and Rancho Cucamonga implemented Municipal Storm Water Management Plans (MSWMP), which prohibit and regulate specific types of discharges, mandate inspections and public education, place controls on new development and redevelopment, and specify site and construction site maintenance practices (SARWQCB, 2010).

To implement their MSWMPs, the cities of Fontana, Rialto and Rancho Cucamonga have developed project conditions of approval for projects requiring coverage under the State's General Permits. These conditions are to be effective at the time of grading permit issuance for construction sites on 1 acre or more and at the time of local permit issuance for industrial facilities (SARWQCB, 2010). These cities require applicants to submit a WQMP as early as possible during the environmental review or planning phase and no grading permit will be issued prior to approval of a site specific WQMP. A WQMP must describe water quality controls, or BMPs, which will be implemented for a project. The BMPs are incorporated into the project design and operation to minimize the impact from identified pollutants of concern and hydrologic conditions of concern. Where pollutants of concern include pollutants that are listed as causing or contributing to impairments of receiving waters, BMPs must also be selected so that the project does not cause or contribute to an exceedance of receiving water quality standards. Strategies to minimize the pollutants in runoff from the project site include site design BMPs, source control BMPs, and/or treatment control BMPs (San Bernardino County, 2005b).

The City of Fontana requires a grading permit for any project that cuts or fills soil to a depth of more than 12 inches to support a structure (City of Fontana, 2010). The City requires applicants for a grading permit to submit a WQMP as part of the permit application process (City of Fontana, 2006). Prior to the issuance of a grading permit, the

City of Fontana Building and Safety division also requires hydrology and hydraulic calculations that demonstrate that the on-site drainage system has been designed to handle the runoff generated by a 10-year storm. The City of Fontana Building and Safety division also requires a check for flooding of all on-site structures (buildings) and all adjacent properties during a 100-year storm (City of Fontana, 2006).

The City of Rialto requires a grading permit for a cut or fill greater than one foot in depth on any recorded lot or parcel. The City of Rialto requires that plans, specifications and supporting data, consisting of a soil engineering report and an engineering geology report, be submitted with the grading permit application. The grading plans are to show the drainage area and the estimated runoff of the area served by drains. Drainage design provisions require the surface water to be carried to the nearest practical street, storm drain or natural watercourse so as not to endanger the health or safety of any property. Prior to the issuance of any grading permit, all qualifying development/redevelopment projects must submit and have approved a stormwater quality management plan (SWQMP) to the city engineer. The SWQMP submittal applies to construction projects covered by the CGP as well as construction projects less than five acres. Qualifying development projects include industrial/commercial developments of 100,000 square feet or more (City of Rialto, 2010).

The City of Rancho Cucamonga adopted Appendix J of the California Building Code as the regulations for grading on private property. The California Building Code states that, "No person shall do any grading without first obtaining a grading permit." A grading permit is required by the City of Rancho Cucamonga if soil excavation exceeds 50 cubic yards and the soil is permanently distributed in the area, changing the topography. A grading permit would not be required for excavations exceeding 50 cubic yards if the soil is exported from the City and the topography is not changed by the grading, as the City would consider the excavation to be grading for a foundation (City of Rancho Cucamonga, 2010). Additionally, the City would require a dust control plan if the soil excavation exceeds 50 cubic yards and the soil is stockpiled. The City of Rancho Cucamonga grading plan check submittal requirements include a drainage report, a soils report, a WQMP, a Storm Water Pollution Prevention Plan (SWPPP), and a percolation test report (City of Rancho Cucamonga, 2010).

4.9.3 Significance Criteria

The significance criteria for assessing the impacts to hydrology and water quality come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of 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)

- 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

- 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

- Create or contribute to runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff

- Otherwise substantially degrade water quality

- Place housing within a 100-year floodplain, as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map

- Place within a 100-year flood hazard area structures which would impede or redirect flood flows

- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam

- Expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow

4.9.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criterion:

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

Because the Proposed Project does not involve housing, there would be no impacts associated with placing housing within a 100-year floodplain.

Construction Impacts

Construction of the Proposed Project would result in less than significant impacts for the following CEQA criteria:

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

Construction of the Proposed Project would not discharge effluent from the construction sites without coverage under the CGP for stormwater discharge obtained from the SARWQCB (please see Section 3.2.1, Storm Water Pollution Prevention Plan, for more information). A SWPPP would be prepared based on final engineering design and would include all project components.

As discussed in the Environmental Setting section, one way that LUPs can be categorized into three risk types depends on the location, sediment risk and receiving water risk. Type 1 LUPs include those for which the risk assessment finds either: (1) sediment risk is low and receiving water risk is low; or (2) that sediment risk is medium and receiving water risk is low (SWRCB, 2009).

A sediment risk assessment for the Proposed Substation site was performed using the Individual Method specified in Appendix 1 in the 2009 GCP (SWRCB, 2009). This method involves determining a rainfall factor (R), a soil erodibility factor (K), and a combined hillslope-length/hillslope-gradient factor (LS). The sediment risk factor is equal to the product of these three factors. The information needed to calculate these factors includes:

- Site latitude and longitude and construction starting and ending dates to calculate the rainfall factor. The latitude and longitude were determined using a topographic map, and the starting and ending dates were estimated based on a 1-year construction duration with operations beginning June 2014.

- Results from soil particle size analyses to calculate the soil erodibility factor. Grain size analyses of samples collected for the Proposed Substation site geotechnical investigation (TDBU, 2010) were used.

- The site sheet flow length and slope to calculate the hillslope-length/hillslope-gradient factor. The length was estimated as the north-south dimension of the SCE parcel, and the slop was determined from existing conditions at the Proposed Substation site.

The sediment risk assessment is shown in Table 4.9-1, Proposed Substation Site Sediment Risk Assessment. The calculated sediment risk factor is 14.8 tons per acre, which is less than the upper limit of 15 tons per acre for a low sediment risk.

Table 4.9-1 Proposed Substation Site Sediment Risk Assessment

Method to Determine Factor	Input	Input Value	Factor Value
Rainfall Factor (R)			**66**
Online calculator (USEPA, 2010)	Latitude	34.1556 degrees	
	Longitude	-117.432 degrees	
	Construction start date	June 3, 2013	
	Construction end date	June 2, 2014	
Soil Erodibility Factor (K)			**0.17**
Erickson triangular nomograph (Appendix 1 in SWRCB 2010), using percentages of sand, silt and clay in grain sizes smaller than 2.0 millimeters in near-surface soil boring samples from Proposed Substation Site geotechnical investigation (TDBU, 2010).	Boring BH-1		0.13
	Percent sand	87 percent	
	Percent silt	13 percent	
	Percent clay	0 percent[1]	
	Boring BH-3		0.17
	Percent sand	72	
	Percent silt	28	
	Percent clay	0[1]	
	Boring BH-4		0.20
	Percent sand	67	
	Percent silt	33	
	Percent clay	0[1]	
	Average		**0.17**
Hillslope-Length/Hillspole-Gradient Factor (LS)			**1.32[2]**
LS look-up table (Appendix 1 in SWRCB 2010)	Sheet flow length	1,150 feet[3]	
	Slope	3 percent	
Sediment Risk Factor (R x K x LS)			**14.8 tons/acre**

Notes:
[1] Clay and silt were not separated in sample analysis. Clay percentage was assumed to be zero, since soil erodibility factor is lower with higher clay percentages.
[2] LS look-up table does not have entries for sheet flow lengths greater than 1,000 feet. Value was calculated by extrapolation using polynomial fit to table entries in Microsoft Excel®.
[3] Estimated north-south dimension of SCE parcel.

Complete information is not available to conduct sediment risk assessments for the Proposed Subtransmission Source Line Routes. Specifically, near-surface soil sampling and grain size analyses needed to calculate the soil erodibility factor have not been conducted. However, the sediment risk factors for the Proposed Subtransmission Source Line Routes are expected to be similar to the sediment risk factor for the Proposed Substation site because:

- The rainfall factors for the midpoints of the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Alder Subtransmission Source Line Route are 55.4 and 57.4, respectively, which are lower than the factor for the Proposed Substation site.

- The erosion class for soils underlying the Proposed Subtransmission Source Line Routes is the same as for soils underlying the Proposed Substation site (slight, as listed in Table 4.6-2, Soil Types Underlying the Proposed Project).

- The topography at the Proposed Subtransmission Source Line Routes is similar to the topography at the Proposed Substation site, sloping to the south at approximately a 3 percent slope, and the sheet flow length at a single location during construction of the Proposed Subtransmission Source Line Routes is not anticipated to be greater than the length for construction of the Proposed Substation site.

Therefore, the Proposed Subtransmission Source Line Routes are expected to have a low sediment risk.

A LUP project has a low receiving water risk if the project area is not located within a Sediment Sensitive Watershed. A Sediment Sensitive Watershed is defined as a watershed draining into a receiving water body listed on EPA's approved CWA 303(d) list for sediment/siltation turbidity or a water body designated with beneficial uses of SPWN, migratory habitat (MIGRATORY) and cold freshwater habitat (COLD). The Proposed Project does not discharge into receiving water bodies that meet the Sediment Sensitive Watershed criteria of either being listed as a 303(d) listed water body impaired by sediment/siltation turbidity nor does the Proposed Project discharge to a water body with a designated beneficial use of SPWN, MIGRATORY and COLD. Therefore, the receiving water risk factor is low.

Combining the low sediment risk factor with the low receiving water risk , the Proposed Project is considered a Type 1 risk level LUP project. Type 1 projects are not subject to numeric effluent standards, and are not required to develop REAPs but are required to implement good site management (housekeeping) measures for construction materials that could potentially threaten water quality if discharged (SWRCB, 2009).

Implementation of the SWPPP and associated BMPs would minimize impacts on water quality from erosion and accidental spills, and other potential water quality impacts during construction. The SWPPP would include a scheduling BMP that recommends sequencing of construction activities and implementation of erosion/sedimentation

control BMPs while taking local conditions into consideration. Proper sequencing of construction activities to reduce potential impacts to stormwater quality would be considered, especially during the rainy season and for activities planned in the 100-year flood zone. If practical, activities that have a high potential for erosion or other impact to water quality, such as major excavations and resulting stockpiles or the use of mud slurry for Tubular Steel Pole (TSP) foundation installation below the groundwater level, would be scheduled for dry periods or would be sequenced so that construction activities are mitigated before new activities begin. For example, excavation activities could be sequenced so that stockpiled soils are addressed before additional excavation begins. Non-active areas including laydown areas would be stabilized as soon as practicable, but within 14 days after the cessation of soil disturbing activities or prior to the onset of precipitation (California Storm Water Quality Association, 2009).

The SWPPP would include non-stormwater management and material management BMPs. Implementation of non-stormwater management and material management BMPs minimize impacts on water quality from storing materials or equipment, including laydown areas, in the 100-year flood zone. Non-stormwater management and material management BMPs are source-control BMPs that prevent impacts by limiting or reducing potential pollutants at their source and eliminating off-site discharge. For example, implementing the concrete waste management BMP would either require concrete washout to occur off site or outside of the 100-year flood zone for the portion of the Proposed Etiwanda Subtransmission Line Route and Telecommunication Facilities located within the 100-year flood zone. Implementation of these BMPs would reduce the impact from construction in the 100-year flood zone and would reduce water quality impacts during a 100-year flood.

Any accidental spill during construction would be immediately addressed as outlined in the SWPPP BMPs. A further discussion of impacts associated with accidental spills and storage of hazardous materials during construction can be found in Section 4.8, Hazards and Hazardous Materials. Any sanitary waste produced during construction (e.g., from portable toilets) would be disposed of according to applicable laws, rules, and regulations.

In addition, implementation of the Worker Environmental Awareness Plan, as described in Section 3.9, Worker Environmental Awareness Training, would provide site personnel with instruction on the individual responsibilities under the CWA, the project SWPPP and site-specific BMPs. As a result, construction of the Proposed Project would not violate any water quality standards or waste discharge requirements. Thus, impacts would be less than significant.

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 ground water 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)?

During installation of foundations for the Proposed Project, including the foundations for the equipment at the Proposed Substation site and the Proposed Subtransmission Source Line Routes, groundwater would not likely be encountered, because the anticipated depth to groundwater was recently determined to be greater than 300 feet bgs. However, if localized, perched groundwater is encountered during excavation or drilling operations, a mud slurry technique would be used to allow construction to continue. Mud slurry activities would be temporary and would not affect groundwater levels in the region. Any localized, perched groundwater would be collected with the mud slurry in a pit adjacent to the excavation and then pumped into containers or tankers and transported for reuse at another location, or disposed off site.

In addition, the Proposed Substation site includes developing 46,120 square feet of impervious surfaces that include the substation equipment foundations, cable trenches, 66 kilovolt bus enclosures, the block wall foundation and the external and internal driveways. This increase in impervious surfaces represents about 14.1 percent of the total approximate surface area (326,700 square feet) for the Proposed Substation site parcel. Thus, the increase in impervious surfaces would not substantially alter the groundwater recharge capabilities of the Proposed Substation site parcel.

Construction of the access and stub roads for the Proposed Subtransmission Source Line Routes will not include impervious surfaces but will recompact the soil beneath the road resulting in some reduction in the groundwater recharge capability of those areas. The access road is a minimum14 feet wide and a ROW is at least 30 feet wide, therefore any unabsorbed runoff from the compacted access or stub roads would be absorbed in the adjacent ROW area.

As a result, construction of the Proposed Project would not 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 such that 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. Thus, impacts would be less than significant.

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?

Currently, stormwater sheet-flows to the south over the vacant land that occupies the Proposed Substation site, which slopes at a 3 percent grade downhill to the south. Construction of the Proposed Substation would involve grading of the enclosed substation surface at a uniform slope of no less than 1 percent in a west-to-east direction.

The grading would not alter the natural flow of runoff in the general area surrounding the enclosed substation nor would it alter the course of a stream or river. The stormwater improvement portion of the grading plan would be designed to control the discharge of stormwater runoff from the site. As required by the City of Fontana grading permit WQMP, site design BMPs would be installed within the enclosed substation to reduce and control post-development runoff rates, and source control BMPs would be incorporated into the site plans to reduce the potential for stormwater runoff.

The Proposed Substation site would also be surfaced with gravel as a source control BMP, which would reduce erosion from stormwater events and sediment transport in surface stormwater flows. The remaining portion of the 7.5-acre parcel would maintain its existing drainage pattern, to the greatest extent practicable with the construction of the Proposed Project components and provide areas for future street improvements and widening, street setbacks, safety buffers and landscaping, if needed.

Construction of the Proposed Subtransmission Source Line Routes would span drainages. Placing structures within drainages is not anticipated. Each sub-transmission line structure (the largest being the TSPs) will have a footprint of up to 4 feet in diameter. If a TSP is located in a flood area, the footprint cross-sections of these structures would be a small portion of the total available area. Therefore, the TSPs would not substantially alter the drainage pattern for the area or a stream or watercourse, or increase runoff in a manner that would result in erosion or siltation on-site or off-site.

Construction of the access roads for the Proposed Subtransmission Source Line Routes may cross ephemeral drainages or man-made drainage ditches. If this is the case, SCE may install temporary drainage structures such as wet crossings or pipe culverts to maintain the natural flow of surface stormwater runoff in the area for access during the rainy season. If SCE determines that wet crossings or temporary drainage structures are necessary a delineation will be conducted to determine the extent of project impacts to jurisdictional waters.. If it is determined that jurisdictional waters will be impacted SCE will seek a Section 401 certification from the SARWQCB and a Section 404 permit from the USACE.

The Proposed Telecommunications Facilities and Proposed Distribution Getaways would not add any new above ground structures. Therefore, there would not be any impact to the existing drainage patterns of the area or of any stream or watercourse from construction of the Proposed Telecommunication Facilities or the Proposed Distribution Getaways.

Because construction of the Proposed Project would not alter the course of a stream or river or substantially increase the rate or amount of surface water runoff in a manner that would result in erosion or siltation on-site or off-site, impacts would be less than significant.

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 a substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Although the Proposed Substation site development would include the placement of semi-permeable and impervious material and the grading of the site would direct stormwater from the west to the east, stormwater runoff from the site would continue to flow to the south once it leaves the graded area. As discussed above, the Proposed Substation site development would change about 14.1 percent of the site area to impervious surfaces. As required by the City of Fontana grading permit WQMP, site design BMPs would be installed within the enclosed substation to reduce and control post-development runoff rates. The site design BMPs would be evaluated and sized using the SBCFCD stormwater manual to control the discharge of stormwater runoff from the site. The City of Fontana grading permit also requires a check for flooding of all on-site structures (buildings) and all adjacent properties during a 100-year storm (City of Fontana, 2006). The existing drainage pattern for the remaining portion of the parcel on which the Proposed Substation is located would not be affected by the Proposed Project since it would be left unchanged to accommodate future street improvements and widening, street setbacks, safety buffers, and landscaping, if needed. As a result, construction of the Proposed Substation would not substantially alter the existing drainage pattern of the site or area or produce a substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site.

Construction of the Proposed Subtransmission Source Line Routes would span drainages. Placing structures within drainages is not anticipated. Each subtransmission line structure (e.g., TSP) will have a footprint of up to four feet in diameter. Should a TSP be located in a flood area, the footprint cross-section of the structure would be a small portion of the total available area. Thus, the construction of the TSPs would not substantially alter the drainage pattern of the area, stream or watercourse, or increase runoff in a manner that would result in flooding on-site or off-site.

Construction of the access roads for the Proposed Subtransmission Source Line Routes may cross ephemeral drainages or man-made ditches. Should this be the case, SCE may install temporary drainage structures such as wet crossings or pipe culverts, if needed, in order to maintain the natural flow of surface stormwater runoff in the area to ensure site access during the rainy season. If SCE determines that wet crossings or temporary drainage structures are necessary a delineation will be conducted to determine the extent of project impacts to jurisdictional waters. If it is determined that jurisdictional waters will be impacted SCE will seek a Section 401 certification from the SARWQCB and a Section 404 permit from the USACE.

The Proposed Telecommunications Facilities and the Proposed Distribution Getaways would not add any new aboveground structures. Therefore, there would not be any alteration of the course of a stream or river nor would there be a substantial increase in the rate or amount of surface water runoff in a manner that would result in flooding on-

site or off-site from constructing the Proposed Telecommunication Facilities or Proposed Distribution Getaways.

Because construction of the Proposed Project would not alter the course of a stream or river or substantially increase the rate or amount of surface water runoff in a manner that would result in flooding on-site or off-site, impacts would be less than significant.

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

SCE will be required to obtain a grading permit for the Proposed Substation from the City of Fontana. The grading permit application process requires the development of a WQMP that would include appropriate site design, source control, or if needed, treatment control BMPs to mitigate stormwater runoff rates and to reduce the potential for pollutants to impact stormwater runoff.

SCE will be required to prepare grading plans to apply for a grading permit from the City of Rialto. The grading plans are to show the drainage area and the estimated runoff of the area served by drains. Prior to approval of the grading permit, SCE will be required to develop a SWQMP that would include appropriate site design, source control, or if needed, treatment control BMPs to mitigate stormwater runoff rates and to reduce the potential for pollutants to impact stormwater runoff.

SCE will be required to prepare a drainage report, an erosion control plan and develop a WQMP to obtain a grading permit from the City of Rancho Cucamonga. The WQMP would include appropriate site design, source control, or if needed, treatment control BMPs to mitigate stormwater runoff rates and to reduce the potential for pollutants to impact stormwater runoff.

SCE would be required to obtain coverage under the CGP from the SWRCB for construction-phase stormwater discharge because the Proposed Project would involve disturbance of approximately 2.7 acres. The CGP requires the development of a SWPPP, which would include appropriate BMPs to minimize potential water quality impacts. In 2009, California adopted a new CGP that assigns permit requirements based on a project's calculated risk level. As discussed above, the Proposed Project would qualify as a Type 1 LUP and would comply with applicable permit requirements.

Due to the small footprint of the construction areas for the Proposed Subtransmission Source Line Routes and access roads, and the small amount of additional impervious area associated with the new construction, the capacity of any existing or planned stormwater systems would not be affected by construction of these facilities. These facilities would also be subject to the conditions of the SWPPP for stormwater discharge.

The Proposed Telecommunications Facilities and Proposed Distribution Getaways would not add any new aboveground structures. Therefore, there would not be any contribution to surface water runoff.

Because construction of the Proposed Project would not substantially increase the rate or amount of surface water runoff in a manner that would result in exceeding the capacity of existing or planned stormwater drainage systems or provide a substantial additional source of polluted runoff, impacts would be less than significant.

Would the project otherwise substantially degrade water quality?

As discussed above regarding the construction of the Proposed Project relating to flooding, erosion, siltation, and discharge of pollutants, there are no additional activities associated with the construction of the Proposed Project that have the potential to substantially degrade water quality. Prior to construction, SCE would secure all appropriate permits for construction-related activities, including coverage under the CGP, and appropriate Sections 401 and 404 permits. Use of hazardous materials at the site is discussed in Section 4.8, Hazards and Hazardous Materials. Impacts would be less than significant.

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

The Proposed Substation site and the Proposed Alder Subtransmission Source Line Route are located outside of the 100-year flood hazard area. During construction of the Proposed Project, a portion of the Proposed Etiwanda Subtransmission Source Line Route would be located within a 100-year floodplain (see Figure 4.9, Flood Hazards). However, the poles and foundations would not alter drainage patterns and do not have a large cross-section that would significantly impede flood flows. The Proposed Telecommunications Facilities and the Proposed Distribution Getaways would not add any new aboveground structures. Impacts would be less than significant.

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?

The Proposed Project is not located in an area with a risk of flooding from dam inundation. The resulting impacts from the failure of a dam would be less than significant.

A portion of the Proposed Etiwanda Subtransmission Line Route is within an area protected from a 100-year flood by a levee (see Figure 4.9, Flood Hazards). Since the Proposed Etiwanda Subtransmission Source Line Route would be designed to withstand the effects of a 100-year flood, the impacts due to flooding as a result of the failure of the levee would be less than significant.

Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

The nearest lake to the Proposed Project is Prado Lake, which is 20 miles down-gradient of the Proposed Substation site. Any flood water from a seiche event would not reach the Proposed Project. Therefore, impacts due to inundation by seiche would be less than significant.

The Proposed Project is not located in an area that has been delineated as being within the projected run up height of tsunamis. Therefore, impacts due to inundation by tsunami would be less than significant.

Since the proposed Project is at least 2 miles from the closest area of steep terrain, and flood control basins are found on San Sevaine and Etiwanda Creeks up-gradient of the Proposed Project (Chino Basin Watermaster, 2009b), the Proposed Project has a low risk of inundation by a mudflow. Therefore, impacts due to inundation by mudflow would be less than significant.

Operation Impacts

Operation of the Proposed Project would result in less than significant impacts for the following CEQA criteria:

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

As discussed in the Construction Impacts section, the Proposed Substation site would be designed to control the discharge of stormwater runoff from the site. As required by the City of Fontana grading permit and WQMP, site design BMPs would be installed to reduce and control post-development runoff rates. Source control BMPs would be incorporated into the site plans to reduce the potential for stormwater runoff and pollutants from coming into contact with one another. If needed, treatment control BMPs could be designed and constructed to treat the adverse impacts of stormwater runoff pollution that would contribute to a violation of water quality standards or waste discharge requirements.

A discussion of impacts associated with transport and storage of hazardous materials during operation of the Proposed Project can be found in Section 4.8, Hazards and Hazardous Materials.

The Proposed Substation site is not presently served by a public sewer system. The Proposed Substation would be equipped with a portable chemical unit within the substation perimeter wall for use during operation and would be maintained by an outside service company. Any sanitary waste produced during operation (i.e. from the restroom facility) would be treated and disposed of according to applicable laws, rules, and regulations by an outside service company. If, at the time of final engineering, both sewer and water connections become available, a stand-alone prefabricated permanent restroom may be installed in close proximity to the Mechanical and Electrical Equipment Room. Since the Proposed Substation would be unstaffed and remotely operated, visits to the Proposed Substation site would likely occur approximately three to four times per month, and effluent discharge from the restroom would be minimal.

The operation of the Proposed Project would result in minimal, if any, effluent discharge. As a result, operation of the Proposed Project would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant.

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 ground water 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)?

Operation of the Proposed Substation may indirectly use groundwater (through a water agency) to maintain landscaping, but this usage is not expected to deplete groundwater supplies. In addition, the impermeable surfaces associated with the Proposed Substation would not substantially interfere with groundwater recharge, as they do not represent a substantial portion of the total developed area. As a result, operation of the Proposed Substation would not 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 ground water table such that 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. Thus, impacts would be less than significant.

The Proposed Subtransmission Source Line Routes would not require the use of substantial amounts of groundwater during operation. Wood poles utilized for the Proposed Project would be direct-buried; however, the TSPs would require concrete foundations that would be 5 to 8 feet in diameter. The area of impermeable surface from the TSP foundations represents an insignificant portion of the total area of the Proposed Subtransmission Source Line Routes and would not interfere with the existing groundwater recharge in these areas. The Proposed Telecommunications Facilities and Proposed Distribution Getaways would not add any new aboveground structures and, therefore, would not interfere with the existing groundwater discharge. Impacts would be less than significant.

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 a substantial increase in the rate or amount of surface runoff in a manner which would result in substantial erosion or siltation on- or off-site?

As discussed above in the Construction Impacts section, the Proposed Substation would be designed to control the discharge of stormwater runoff from the site. As required by the City of Fontana grading permit and WQMP, site design BMPs would be installed within the enclosed substation to reduce and control post-development runoff rates and source control BMPs would be incorporated into the site plans to reduce the potential for stormwater runoff.

In addition, following the completion of construction, all areas that were temporarily disturbed by Proposed Project construction activities would be restored to the extent practicable to their preconstruction conditions. Restoration areas could include, but are not limited to: selected access roads, material staging and laydown areas, pull and tension sites, splicing sites, distribution getaway locations, and pull box locations. The Proposed Telecommunications Facilities and Proposed Distribution Getaways would not add any new aboveground structures that could increase surface runoff. As a result, operation of

the Proposed Project would not alter the existing drainage pattern of the area in a manner that would result in substantial erosion or siltation on-site or off-site. Thus, impacts would be less than significant.

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 flooding on- or off-site?

As discussed above in the Construction Impacts section, site design BMPs engineered to minimize the change in the rate or amount of surface water runoff would be installed during construction of the Proposed Project. These site design BMPs would be maintained during operation of the Proposed Project and would minimize the change in the rate or amount of surface water runoff in the Proposed Project area. As a result, operation of the Proposed Project would not alter the existing drainage pattern of the area in a manner that would result in substantial flooding on-site or off-site. Thus, impacts would be less than significant.

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

As discussed above in the Construction Impacts section, site design, source control, and if needed, treatment control BMPs to mitigate stormwater runoff rates and to reduce the potential for pollutants to impact stormwater runoff would be installed during construction of the Proposed Project. These BMPs would be maintained during operation of the Proposed Project. These measures would minimize any adverse effects to existing or planned stormwater drainage systems and would minimize sources of polluted runoff. Impacts would be less than significant.

Because the operation of the Proposed Substation would include the use of transformer oil, SCE would be required to prepare and implement a Spill Prevention Control and Countermeasure (SPCC) plan for the site in compliance with Code of Federal Regulations Title 40 Parts 112.1 through 112.7. SPCC measures include the installation of secondary containment, curbs, berms, and basins designed to contain spills, should they occur. These features would be part of SCE's final engineering design for the Proposed Project and would minimize the potential for hazardous materials to migrate off site. Additional discussion of impacts associated with the storage and use of hazardous materials during operation of the Proposed Project can be found in Section 4.8, Hazards and Hazardous Materials.

As discussed above in the Construction Impacts section, the small footprints of the Proposed Subtransmission Source Line Routes would not substantially contribute to runoff water or provide substantial additional sources of polluted runoff. The Proposed Telecommunications Facilities and the Proposed Distribution Getaways would not add any new aboveground structures that could provide sources of polluted runoff.

Because operation of the Proposed Project would not substantially increase the rate or amount of surface water runoff in a manner that would result in exceeding the capacity of existing or planned stormwater drainage systems or provide a substantial additional source of polluted runoff, impacts would be less than significant.

Would the project otherwise substantially degrade water quality?

As discussed above regarding the operation of the Proposed Project relating to flooding, erosion, siltation, and discharge of pollutants, there are no other activities associated with the operation of the Proposed Project that have the potential to substantially degrade water quality. Thus, impacts would be less than significant.

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

As discussed above in the Construction Impacts section, the southernmost portion of the Proposed Etiwanda Subtransmission Source Line Route would be within a 100-year floodplain (see Figure 4.9, Flood Hazards). However, the poles and foundations would not alter drainage patterns and do not have a large cross-section that would significantly impede flood flows. Therefore, impacts would be less than significant.

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?

The Proposed Project is not located in an area with a risk of flooding from dam inundation. The resulting impacts from the failure of a dam would be less than significant.

As discussed above in the Construction Impacts section, a portion of the Proposed Etiwanda Subtransmission Source Line Route is located in an area protected from a 100-year flood by a levee (see Figure 4.9, Flood Hazards). Since the Proposed Etiwanda Subtransmission Source Line Route would be designed to withstand the effects of a 100-year flood, the impacts due to flooding as a result of the failure of a levee would be less than significant.

Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

The nearest lake to the Proposed Project is Prado Lake, which is 20 miles down-gradient of the Proposed Substation site. Any flood water from a seiche event would not reach the Proposed Project. Thus, impacts due to inundation by seiche would be less than significant.

The Proposed Project is not located in an area that has been delineated as being within the projected run up height of tsunamis. Therefore, impacts due to inundation by tsunami would be less than significant.

Since the proposed Project is at least 2 miles from the closest area of steep terrain, and flood control basins are found on San Sevaine and Etiwanda Creeks up-gradient of the Proposed Project (Chino Basin Watermaster, 2009b), the Proposed Project has a low risk of inundation by a mudflow. Therefore, impacts due to inundation by mudflow would be less than significant.

4.9.5 Alternative Substation Site

The Alternative Substation site is located immediately to the northwest of the Proposed Substation site and has identical topographic relief as compared to the Proposed Substation site (see Figure 4.9, Flood Hazards). The Alternative Substation site is located on undeveloped land similar to the Proposed Substation site. Due to the geographical proximity of the Alternative site, it will have a similar risk determination as the Proposed Substation site and would also be a Type 1 LUP. The Alternative Substation site is located immediately adjacent to Sierra Avenue. The stormwater runoff from the site would be expected to drain to the south and then west to enter the SBCFCD/Fontana storm drain system, which drains into San Sevaine Creek and Etiwanda Creek..As with the Proposed Substation site, the City of Fontana requires a WQMP to be prepared for the grading permit for the Alternative Substation site. The WQMP would identify site design BMPs to be installed within the enclosed Alternative Substation to reduce and control post-development runoff rates; source control BMPs to be incorporated into the site plans to reduce the potential for stormwater runoff and pollutants from coming into contact with one another; and if needed, treatment control BMPs to be designed and constructed as need to treat the adverse impacts of stormwater runoff pollution. As a result, construction and operation of the Alternative Substation site is expected to have the same potential for impacts to hydrology and water quality as the Proposed Substation site. Construction and Operational impacts would be less than significant.

4.9.6 Alternative Subtransmission Source Line Routes

The Alternative Alder Subtransmission Source Line Route B would be located in an area that has identical topographic relief as compared to the Proposed Alder Subtransmission Source Line Route. In addition, both the Alternative Alder Subtransmission Source Line Route B and the Proposed Alder Subtransmission Source Line Route drain to the same City of Rialto storm drain system. As a result, construction and operation of the Alternative Alder Subtransmission Source Line Route would have the same potential for impacts to hydrology and water quality as the Proposed Project; these impacts would be less than significant.

4.9.7 References

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4.10 Land Use

This section describes land use in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

The Proposed Substation site is located on 2.7 acres of an approximately 7.5-acre parcel located in the City of Fontana. SCE's remaining acreage within the proposed site may be considered for future street improvements and widening, street setbacks, safety buffers, and landscaping if needed. The 7.5-acre parcel is owned by SCE and is located to the east of Sierra Avenue and to the west of the possible future extension Mango Avenue. It should be noted that Mango Avenue serves as the boundary between the cities of Fontana and Rialto. The parcel is bounded on the north and south by undeveloped land.

SCE would establish vehicular access to the Proposed Substation site from the west along a paved driveway approximately 1,000 feet in length connecting Sierra Avenue to the substation entry gate located at the western substation wall. Approximately 700 feet of the driveway would cross SCE's existing transmission right-of-way (ROW), and approximately 300 feet would cross the SCE substation property to the substation entry gate. New ROW and easement rights would be required for portions of the Proposed Subtransmission Source Line Routes. The location of the Proposed Substation site as well as the alignment of the Proposed Subtransmission Source Line Routes, are shown in Figure 3.3, Subtransmission Source Line Route Description.

The Proposed Project is compatible with land use plans and policies adopted by local agencies responsible for land use planning in the Proposed Project area. The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project, because the CPUC regulates and authorizes the construction of investor-owned public utility (IOU) facilities. Although such projects are exempt from local land use and zoning regulations and permitting, General Order No. 131-D, Section III.C requires "the utility to communicate with, and obtain the input of, local authorities regarding land-use matters and obtain any non-discretionary local permits (CPUC, 2010)." As part of its environmental review process, SCE considered local and State land use plans and policies, and local land use priorities and concerns.

Regarding land use compatibility, California Government Code Section 51238 indicates that electrical facilities are compatible with the Williamson Act and other agricultural uses; see Section 4.2, Agriculture and Forestry Resources, for further discussion regarding agricultural uses.

4.10.1 Environmental Setting

The Proposed Project is located within the cities of Fontana, Rancho Cucamonga, and Rialto, and also a small portion of unincorporated San Bernardino County.

The majority of the Proposed Project lies within the City of Fontana in an existing utility corridor, including the Proposed Substation site. The City of Fontana is built on an alluvial plain flowing southward from the confluence of Lytle Creek and the San Sevaine

Wash. The San Bernardino and San Gabriel Mountains to the north and the Jurupa Hills to the south provide a scenic backdrop for the developed areas of the City (City of Fontana, 2003a). According to the City of Fontana's General Plan, the City is characterized as a bedroom community with a commuting population of workers and, due to its suburban location near several major freeway and rail transportation corridors, is also a major Inland Empire hub of warehousing and distribution centers. These uses are located mainly in the City's southern half, adjacent to the 10 Freeway corridor. There is also some concentration of these uses near Cherry Avenue and Baseline Road. Heavy industrial areas surround the former Kaiser Steel plant (now California Steel) within the City's sphere of influence and along the 10 Freeway corridor between Valley Boulevard and Slover Avenue (City of Fontana, 2003a). In addition, established single and multi-family residential neighborhoods and the commercial core of Fontana are largely contained between Baseline Road and Valley Boulevard. Newer residential development is occurring along the northern edge of the City west of the 15 Freeway and radiating north and south of the 210 Freeway corridor (City of Fontana, 2003a). A large portion of the City, north of the 210 Freeway, still remains to be developed as a mix of planned communities and job centers.

A small portion of the Proposed Project lies within the Southeast Focus Area of the City of Rancho Cucamonga. According to the City of Rancho Cucamonga General Plan (2010), the Southeast Focus Area of the City is bordered to the west by I-15 and to the east by unincorporated San Bernardino County and the City of Fontana. Heavy industrial uses, mainly steel and pipe manufacturing, predominate the area. Development located directly north of the Focus Area includes a shopping center, a Metropolitan Water District reservoir, and a multi-unit residential neighborhood. This Focus Area surrounds Reliant Energy's Etiwanda Power Plant on Etiwanda Avenue (City of Rancho Cucamonga, 2010).

The northeast portion of the Proposed Project Area is located within the City of Rialto. The City of Rialto is located in western San Bernardino Valley and shares its boundaries with the cities of Fontana and Colton and unincorporated Riverside and San Bernardino counties (City of Rialto, 2010a). The area north of the 210 Freeway where the Proposed Project is located is characterized by industrial and warehouse facilities clustered along Rialto's rail lines. In addition, this area contains other industrial areas, such as the land adjacent to the Rialto Municipal Airport.

Also, a small portion of the Proposed Project Area is located within unincorporated San Bernardino County. San Bernardino County, the largest county in the United States, consists of three distinct geographic regions: the Valley, the Mountains, and the Desert. Specifically, the small portion of the Proposed Project that is located within unincorporated San Bernardino County lies within the Valley Planning Region. According to the County of San Bernardino General Plan (2007), the Valley Planning Region is defined as all the area within the County that is south and west of the U.S. Forest Service boundaries. The San Bernardino Mountain range, trending southeast, forms the eastern limit of the Valley, along with the Yucaipa and Crafton Hills. The southern limits of the Valley are marked by alluvial highlands extending south from the San Bernardino and the Jurupa Mountains. The Valley Planning Region of the County is

approximately 60 miles east of the Pacific Ocean and borders Los Angeles, Orange, and Riverside counties. The Proposed Project crosses through the Valley Planning Region of the County north of the 10 Freeway, near the intersection of Etiwanda Avenue and Whittram Avenue. This area consists mostly of industrial uses.

The only airport located within 2 miles of the Proposed Project is the Rialto Municipal Airport. The Rialto Municipal Airport is a general aviation airport located approximately 0.5 miles from the Alder Substation and 2 miles from the Proposed Substation site. The Rialto Municipal Airport is used by privately operated and chartered aircraft; it is not used by commercial airlines (Scanlan, 2010). The Rialto Municipal Airport was approved for closure by Congress in 2005, and the City of Rialto has since initiated the process to close the airport (Press Enterprise, 2010; City of Rialto, 2010a). However, the Rialto Municipal Airport is currently open and projected to close within the next five to 10 years (2015-2020) (Scanlan, 2010). Potential impacts related to this airport resulting from implementation of the Proposed Project are discussed in Section 4.8, Hazards and Hazardous Materials, Section 4.12, Noise, and Section 4.16, Transportation and Traffic.

The nearest commercial airport is Ontario International Airport, located approximately 4 miles southwest of the Etiwanda Substation. Cable Airport (privately owned) is located approximately 7 miles from the Etiwanda Substation, and Chino Airport (publicly owned) is located approximately 10 miles southwest of the Etiwanda Substation. In addition, San Bernardino International Airport (publicly owned) is located approximately 10 miles southeast of the Alder Substation, Redlands Municipal Airport (publicly owned) is located approximately 14 miles to the southeast of the Alder Substation, Riverside Municipal Airport (publicly owned) is located approximately 12 miles south of the Proposed Project, and Perris Valley Airport (privately owned) is located approximately 25 miles southwest of the Proposed Project.

Existing transmission lines are present in the Proposed Project area. The Electrical Needs Area for the Proposed Project encompasses portions of the cities of Fontana, Rancho Cucamonga, Rialto, and the surrounding areas of unincorporated San Bernardino County. The Project Study Area is in and near the cities of Fontana and Rialto, and is defined as the portion of SCE's territory that draws service from the existing Alder 66/12 kilovolt (kV) Substation and Randall 66/12 kV Substation. The Alder and Randall Substations provide electrical service to approximately 46,000 metered customers and serve forecasted electrical demand within the Electrical Needs Area (see Figure 1.1, Electrical Needs Area).

Planned and Proposed Development

The Proposed Substation site is located to the east of the Summit at Rosena Specific Plan area (City of Fontana, 2006). Conversations with City of Fontana staff indicate that while the Summit at Rosena Specific Plan has been approved, it has not been constructed and will likely not be constructed for several years due to the change in the economic climate (Gonzales, 2010).

Approximately 0.22 mile north of the Proposed Substation site, the Arboretum Specific Plan has been approved for a maximum of 3,526 residential units, two school district

sites, private and public recreational facilities and an activity center (City of Fontana, 2010).

The Proposed Alder Subtransmisson Source Line Route, Proposed Telecommunication Facilities and the Alder Substation are located within the proposed Renaissance Specific Plan in the City of Rialto. The Renaissance Specific Plan will result in the redevelopment of the area currently occupied by the Rialto Municipal Airport, allowing for new commercial, industrial, and residential uses. The Renaissance Specific Plan is expected to be adopted within one year of the General Plan (City of Rialto, 2010b).

The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would cross diagonally through the approved Citrus Heights North Specific Plan in an existing utility corridor. The Citrus Heights North Specific Plan is a master-planned community that will consist of a maximum of 1,161 homes, a neighborhood commercial center and public and private recreational facilities (City of Fontana, 2004).

The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would also cross diagonally through the approved Summit Heights Specific Plan in an existing utility corridor. The Summit Heights Specific Plan includes 1,051 single-family residential lots with various lot sizes. The majority of the single-family residential areas west of Beech Avenue will have a minimum lot size of 7,200 square feet (City of Fontana, 2001).

In addition, the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would cross diagonally through the approved Westgate Specific Plan in an existing utility corridor. The Westgate Specific Plan has the potential to have approximately 2,031 low-density residential dwelling units on 421.1 acres and 474 medium-high density residential dwellings on 79 acres. The Westgate Specific Plan will have approximately 9.4 acres of retail/commercial space, 117.6 acres of business park space, 129.5 acres of mixed-use development, 10 acres for an elementary school site, 15 acres of park land, 91.6 acres of open space/utility corridor; and 80.9 acres of roads/ROW (City of Fontana, 2003b).

The California Landings Specific Plan, located approximately 0.26 miles east of Staging Area 5 on Highland Avenue, has been approved for a residential subdivision for 750 lots, one commercial lot, one lot for a neighborhood park, and one lot for an elementary school. An additional 15 acres of out-parcels were proposed as single-family residential lots (minimum lot sizes of 10,000 square feet) (City of Fontana, 1994).

The West End Specific Plan, approximately 350 feet north of Staging Area 6, has been approved for 3,549 residential dwelling units on 749.7 acres, 14.2 acres of office, 10 acres of office/commercial, 53.5 acres of commercial and 418.8 acres of industrial. Additionally, the West End Specific Plan will have 22.1 acres of schools, 21.4 acres of flood control channels, 48.7 acres of major roadways and 126.8 acres for parks, civic uses and other open spaces (City of Fontana, 1998).

General Plan Land Use Designation, Existing Land Use and Zoning

Proposed Substation Site and Proposed Distribution Getaways

Land Use

Existing land use designations in the area of the Proposed Project are shown on Figure 4.10-1, General Plan Land Use Designations.

The Proposed Substation site and the adjacent area where the Proposed Distribution Getaways would be installed is undeveloped land that is currently not in use. As mentioned previously, the approximately 7.5-acre parcel of land is located within the City of Fontana and is currently owned by SCE. According to the City of Fontana General Plan (2003a), this property is currently designated as Regional Mixed Use (RMU). The Land Use Element of the City of Fontana General Plan (2003a) defines the RMU designation as follows:

> The Regional Mixed Use (RMU) land use designation is used for areas intended as centers for employment generating commercial and industrial uses. Specific development types allowed in RMU include: research and development facilities, general commercial uses, corporate business parks, service business offices, light manufacturing, warehouse retail, entertainment centers, hotels and convention centers, professional business offices, day care centers, and public open space.

The Proposed Distribution Getaways (a total of three getaways) would consist of five new underground vaults installed outside the Proposed Substation walls on either the SCE substation property, private property, or in franchise, and the connections to those vaults. Based on a preliminary assessment of the Proposed Distribution Getaway locations and review of the City of Fontana General Plan (2003a), the Proposed Distribution Getaways could be located in land designated as RMU, Residential Planned Community (R-PC), and/or Public Utility Corridor (P-UC). The Land Use Element of the General Plan defines R-PC as a land use designation intended to provide for the managed growth of master planned communities offering a mix of residential housing types and amenities available for various economic segments of the population. Also, the Land Use Element of the General Plan defines P-UC as a land use designation used to indicate locations in the planning area that contain easements for public utilities (City of Fontana, 2003a).

Residential uses are located less than 0.5 mile northeast and southwest of the Proposed Substation site. In addition, the Summit at Rosena Specific Plan is located to the west side of the Proposed Substation site (City of Fontana, 2006). While the Summit at Rosena Specific Plan area is currently undeveloped, this specific plan has been approved by the City of Fontana (Gonzales, 2010).

Zoning

Existing zoning designations in the area of the Proposed Project are shown on Figure 4.10-2, Zoning.

The Proposed Substation site is currently zoned by the City of Fontana as Regional Mixed Use (RMU) (City of Fontana, 2003a). The City of Fontana's Zoning and Development Code (2008) defines the RMU zoning designations as follows:

> Regional Mixed Use (RMU) is a zoning district that accommodates a wide range of retail commercial, office, light manufacturing, civic, and, under certain circumstances, residential uses to create vibrant activity centers with compatible activities.

Based on a preliminary assessment of the Proposed Distribution Getaway locations and review of the City of Fontana General Plan (2003a), the Proposed Distribution Getaways could be located in land zoned as RMU. However, the Proposed Distribution Getaways could also be located in the Summit at Rosena Specific Plan, based on the City of Fontana Zoning District Map (City of Fontana, 2009).

Etiwanda Substation

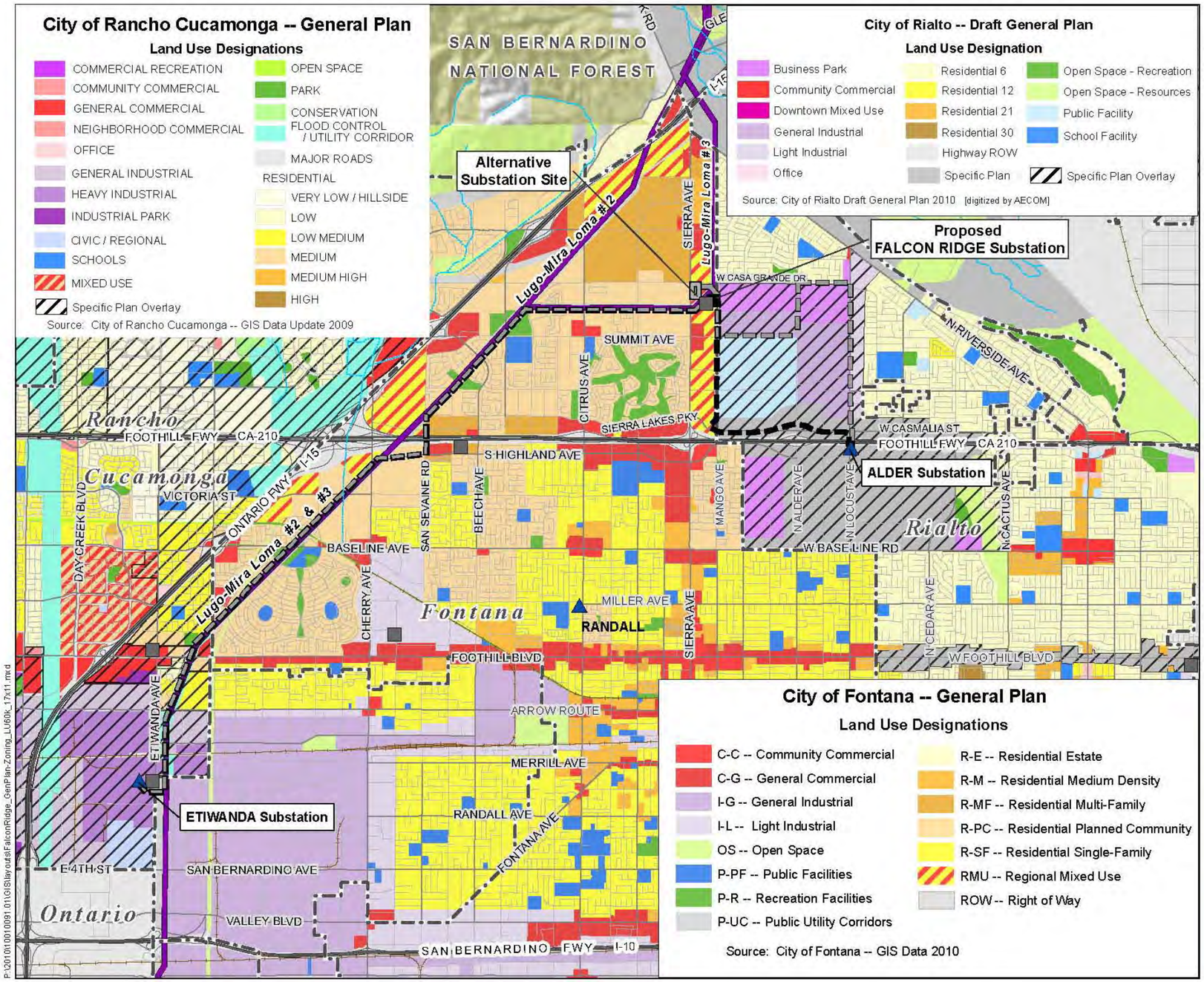
Land Use

The Etiwanda Substation is located in the City of Rancho Cucamonga. According to the City of Rancho Cucamonga General Plan (2010), the Etiwanda Substation site is designated as Heavy Industrial (HI). The Land Use Element of the City of Rancho Cucamonga General Plan defines this land use designation as follows:

> The Heavy Industrial land use designation permits heavy manufacturing, compounding, processing or fabrication, warehousing, storage, freight handling, and truck services and terminals, as well as supportive service commercial uses.

In addition, the Etiwanda Substation lies within the Industrial Area Specific Plan area. According to the Industrial Area Specific Plan (Chapter 17.30 of the City of Rancho Cucamonga Development Code, 2009), the Etiwanda Substation has a specific plan land use designation of HI. The Industrial Area Specific Plan (2009) defines this land use designation as follows:

> The Heavy Industrial (HI) specific plan land use designation allows for medium, minimum impact, and heavy industrial manufacturing and each of the wholesale storage and distribution uses.



Falcon Ridge Substation Project

Figure 4.10-1

General Plan Land Use Designations

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

Proposed

Alternative

Common to Both

Potential Staging Areas

Existing Features

Substation

500 kV Transmission Line

Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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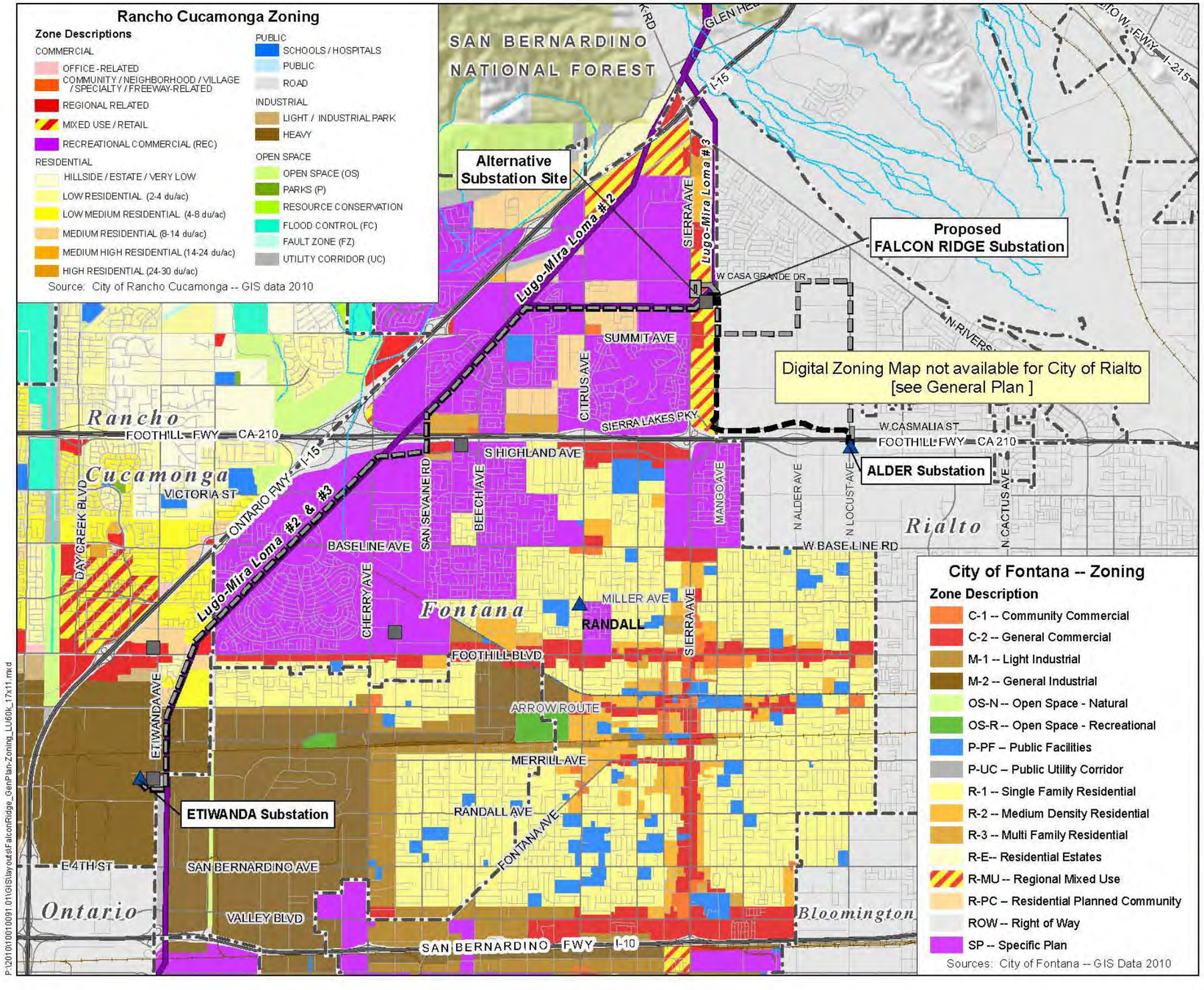

Falcon Ridge Substation Project

Figure 4.10-2

Zoning

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

Proposed

Alternative

Common to Both

Potential Staging Areas

Existing Features

Substation

500 kV Transmission Line

Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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Zoning

According to the City of Rancho Cucamonga General Plan (2010), the Etiwanda Substation is zoned as "Heavy Industrial." The City of Rancho Cucamonga Development Code (2009) defines this zoning designation as activities that include manufacturing, compounding, processing, fabrication, warehousing, storage, and freight handling.

Alder Substation

Land Use

The Alder Substation is located in the City of Rialto. According to the City of Rialto Draft General Plan (2010a),[1] the Alder Substation site is designated as Specific Plan (SP). Currently, the Alder Substation is located within the Rialto Airport Specific Plan area. However, according to the Draft General Plan, the Rialto Airport Specific Plan area will be replaced by the Renaissance Specific Plan. The Renaissance Specific Plan will result in the redevelopment of the area currently occupied by the Rialto Municipal Airport, allowing for new commercial, industrial, and residential uses (City of Rialto, 2010b). The Renaissance Specific Plan is expected to be adopted within one year of the General Plan (City of Rialto, 2010a).

Because the Draft Renaissance Specific Plan has not yet been adopted, the Alder Substation is subject to the existing adopted Rialto Airport Specific Plan. The Rialto Airport Specific Plan (2006) designates the Alder Substation as Planned Industrial Development (I-PID). The Rialto Airport Specific Plan defines this land use designation as follows:

> The Planned Industrial Development (I-PID) specific plan land use designation allows for office, industrial, and light manufacturing uses.

According to the Rialto Airport Specific Plan (2006), the use category titled "public utility or public service structures and installations" requires a Conditional Development Permit Plan within the I-PID land use designation (Casey, 2010).

Zoning

According to the City of Rialto Land Use Zoning Map (2002), the Alder Substation site is located in land zoned as Rialto Airport Specific Plan – Planned Industrial Development (I-PID). The definition of the I-PID zoning designation is the same as the I-PID specific plan land use designation discussed above. In addition, the I-PID zoning designation has the same use regulations as the I-PID specific plan land use designation.

[1] Please note that the City of Rialto Draft General Plan (2010a) is used for this analysis because it is expected to be adopted by the end of 2010 (City of Rialto, 2010d).

Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities

Land Use

The Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be approximately 3 miles in length from the existing Alder Substation to the Proposed Substation site. The Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located in the cities of Rialto and Fontana.

City of Rialto

Within the City of Rialto, the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located on lands designated by the City of Rialto Draft General Plan (City of Rialto, 2010a) as:

- GI: General Industrial
- P: Public Facility
- SP: Specific Plan

The Land Use Element of the City of Rialto General Plan (2010a) defines the above land use designations as follows:

> The General Industrial (GI) land use designation allows for a broad range of heavy industrial activities requiring large areas of land with convenient access for trucks and rail. Permitted uses include manufacturing and processing, warehousing and distribution, chemical or petroleum products processing and refining, heavy equipment operations, and similar uses.
>
> The Public Facility (P) land use designation encompasses government, civic, cultural, health, and infrastructure uses and activities which contribute to and support the needs of the community.
>
> The Specific Plan (SP) requires the implementation of a specific plan. The specific plan will specify the land use designations and must be consistent with the General Plan.

The Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would cross through the Rialto Airport Specific Plan area. As discussed previously for the Alder Substation, the Rialto Airport Specific Plan will be replaced by the Renaissance Specific Plan. However, as the Draft Renaissance Specific Plan has not yet been adopted, the Proposed Alder Subtransmission Source Line Route is subject to the existing adopted Rialto Airport Specific Plan. The Proposed Alder Subtransmission Source Line Route crosses through the following land uses designated by the Rialto Airport Specific Plan (2006):

- I-PID: Planned Industrial Development
- I-GM: General Manufacturing
- OS-L: Open Space - Landfill
- RFC: Regional Freeway Commercial

The definition of I-PID was provided previously for the Alder Substation. The Rialto Airport Specific Plan defines the other land use designations as follows:

> The General Manufacturing (I-GM) specific plan land use designation allows for the most intensive industrial uses.
>
> The Open Space - Landfill (OS-L) specific plan land use designation allows for open space or recreation uses following the closure of the landfill.
>
> The Regional Freeway Commercial (RFC) specific plan land use designation allows for regional, freeway-oriented commercial uses.

City of Fontana

Within the City of Fontana, the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located on lands designated by the City of Fontana (City of Fontana, 2003a) as Regional Mixed Use (RMU). The definition of RMU was provided previously for the Proposed Substation site.

Zoning

City of Rialto

Within the City of Rialto, the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located on lands zoned by the City of Rialto as:

- I-PID: Planned Industrial Development
- I-GM: General Manufacturing
- OS-L: Open Space - Landfill
- RFC: Regional Freeway Commercial

The above zoning designations are the same as the Rialto Airport Specific Plan land use designations discussed previously. In addition, the zoning designations listed have the same use regulations as the Rialto Airport Specific Plan land use designations.

City of Fontana

Within the City of Fontana, the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would include lands zoned by the City of Fontana (City of Fontana, 2003a) as Regional Mixed Use (RMU). The definition of RMU was provided previously for the Proposed Substation site.

Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities

Land Use

The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be approximately 9 miles in length from the existing Etiwanda Substation to the Proposed Falcon Ridge Substation site. The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located within unincorporated San Bernardino County and within the cities of Rancho Cucamonga and Fontana.

County of San Bernardino

A small portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities located northeast of the Etiwanda Substation would be located on land designated by the County of San Bernardino General Plan (County of San Bernardino, 2007) as Regional Industrial Land Use Zoning District (IR). The Land Use Element of the County General Plan describes the purpose for the IR Land Use Zoning District follows:

> To identify and establish areas suitable for major industrial centers or a single large industrial plant having 200,000 or more square feet of floor area, or more than 500 employees on any shift.
>
> To provide sites for industrial uses which have severe potential for negative impacts on any uses that would locate relatively close to them.
>
> To identify areas intended eventually to be utilized for industrial purposes to support the public need for manufacturing uses and employment opportunities.

The County has combined its land use designations and zoning classifications as part of its "one-map approach" to ensure there will always be land use consistency between the County's General Plan and its Zoning Code (County of San Bernardino, 2007).

City of Rancho Cucamonga

Within the City of Rancho Cucamonga, the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located on lands designated by the City of Rancho Cucamonga (City of Rancho Cucamonga, 2010) as: Open Space -- Flood Control/Utility Corridor. The Land Use Element of the City of Rancho Cucamonga General Plan defines the Open Space -- Flood Control/Utility Corridor land use designation as follows:

> The Flood Control/Utility Corridor designation includes lands primarily used for flood control purposes and to support public utilities. Improvements typically include flood control channels, drainage basins, and major utility corridors, such as high-tension electric power transmission lines and towers. Flood control facilities include improved channels and natural waterways under the control of the City and the San Bernardino County Flood Control District. Both Deer and Day Creeks, along with utility easements within the Sphere of Influence, are key elements of the Flood Control/Utility Corridor designation.

Additionally, the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would pass through portions of the Industrial Area Specific Plan with the following land use designations:

- GI: General Industrial
- HI: Heavy Industrial

The definition of HI was provided previously for the Etiwanda Substation. The Industrial Area Specific Plan defines the GI land use designation as:

> The General Industrial (GI) specific plan land use designation is intended to accommodate a wide range of light to medium manufacturing and wholesale, storage, and distribution uses. Typically, administrative, office, and professional services are not allowed to reduce the potential for land use conflicts.

The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would also cross through a portion of the Etiwanda Specific Plan with a land use designation of Open Space (OS). The Etiwanda Specific Plan (City of Rancho Cucamonga, 2000) provides the following definition of the OS land use designation:

> The Open Space (OS) land use designation allows for the following uses: (1) flood control channels, levees, spreading grounds and basins, roads, bridges, diversion drains, and utility installations including high voltage transmission lines and similar facilities; (2) field crops, orchards, tree farms, truck gardening, berry and bush crops, flower gardening, wildlife preserves, and similar open or agricultural uses; and (3) other uses or enterprises similar to the above and approved by the Planning Commission.

City of Fontana

Within the City of Fontana, the Proposed Etiwanda Subtransmission Source Line Route and Telecommunication Facilities would be located on lands designated by the City of Fontana as:

- C-G: General Commercial
- R-MF: Multi Family Residential
- RMU: Regional Mixed Use
- R-PC: Residential Planned Community
- P-UC: Public Utility Corridor

The definition of RMU was provided previously for the Proposed Substation site. The Land Use Element of the City of Fontana General Plan (2003) defines the other land use designations as follows:

> The General Commercial (C-G) land use designation is intended for retailing, wholesaling, and service activities, including automobile dealerships and malls. Offices and businesses providing professional services, including; legal services, financial institutions, administrative and corporate offices, medical offices and clinics are also permitted in these areas.
>
> The Multi Family Residential (R-MF) land use designation is intended to be located near activity centers such as commercial and employment centers, major community facilities, and arterial corridors. Typical development in this residential category would include duplexes, condominiums, townhomes and apartments.
>
> The Residential Planned Community (R-PC) land use designation's intent is to provide for the managed growth of master planned communities offering a mix of residential housing types and amenities available for various economic segments of the population. The designation recognizes approved single-family residential development areas within approved Specific Plans. The R-PC designation is also intended to accommodate development of new planned residential communities in Fontana either using conventional zoning or a Specific Plan (for projects of 145 acres minimum).
>
> The Public Utility Corridor (P-UC) designation is used to indicate locations in the planning area that contain easements for public utilities.

The majority of the Proposed Etiwanda Subtransmission Source Line Route and Telecommunication Facilities in the City of Fontana lie within the P-UC land use designation.

In addition, the Proposed Etiwanda Subtransmission Source Line Route and Telecommunication Facilities would cross through five specific plan areas: (1) West End Specific Plan; (2) Westgate Specific Plan; (3) Summit Heights Specific Plan; (4) Citrus Heights North Specific Plan; and (5) Summit at Rosena Specific Plan.

According to the West End Specific Plan (City of Fontana, 1998), the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be designated as Public/Quasi-Public (P/QP). The West End Specific Plan (1998) defines this specific plan land use designation as:

> The Public/Quasi-Public (P/QP) specific plan land use designation allows for public/quasi-public uses, such as elementary schools, an intermediate school, parks, civic uses trails, and other open areas including utility/flood control easements. The West End Specific Plan notes that SCE and the

> Gas Company easements will be landscaped in specific areas, and a pedestrian trail will be provided to connect with the region-wide trail system.

According to the Westgate Specific Plan (2003), the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would have the following specific plan land use designations:

- P/UC: Public Utility Corridor
- MH: Residential Medium High (MH)
- MU: Mixed Use

The Westgate Specific Plan (City of Fontana, 2003b) defines the above specific plan land use designations as follows:

> The Public Utility Corridor (P/UC) specific plan land use designation identifies locations in the planning areas which contain rights-of-way for utilities such as Southern California Edison transmission lines and easements held by other quasi-public agencies.
>
> The Residential Medium High (MH) specific plan land use designation permits single-family detached dwellings units up to 6.0 units per acre. No apartments or attached homes are permitted.
>
> The Mixed Use (MU) specific plan land use designation is intended to allow a variety of compatible uses and facilities supportive of the general community. These uses include retail, business park, and professional offices.

According to the Summit Heights Specific Plan (City of Fontana, 2001), the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would have be designated as Utility Corridor. The Summit Heights Specific Plan defines this specific plan land use designation as follows:

> The Utility Corridor consists of an SCE right-of-way easement, a Southern California Gas Company/San Gabriel Valley Municipal Water District easement, and Metropolitan Water District owned property. The Utility Corridor permits improvements for recreational use.

According to the Citrus Heights North Specific Plan (City of Fontana, 2004), the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be designated as Not-A-Part (N.A.P.). The Citrus Heights North Specific Plan defines this specific plan land use designation as follows:

> The Not-A-Part (N.A.P.) specific plan land use designation is intended for the two utility easements that traverse the specific plan area and run in

> north-east and east-west alignment. These easements will remain and are not included within the Citrus Heights North Specific Plan boundaries. However, disturbances within the utility easements as a result of the Citrus Heights North Specific Plan may include the installation of trails and other passive uses which would require approval from SCE, Southern California Gas & Electric, and the Metropolitan Water District.

According to the Summit at Rosena Specific Plan (City of Fontana, 2006), the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be designated as "Open Space Via Edison Right-of-Way." The Summit at Rosena Specific Plan defines this specific plan land use designation as follows:

> The Open Space Via Edison Right-of-Way will be converted into a 20-acre park (Edison Trails Park), which will provide 13.5 acres of landscaping and open play areas, a one-quarter mile running track, more than a mile of meandering 8-foot wide walking/biking trails with exercise stations, xeriscape demonstration gardens, and public parking. Edison Trails Park will be open to the public. The Summit at Rosena Specific Plan further notes that a license agreement for use of the SCE ROW within the Specific Plan area shall be entered into prior to recordation of the first tract map within the Summit at Rosena Specific Plan.

Zoning

County of San Bernardino

A small portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities located northeast of the existing Etiwanda Substation would include land designated by the County of San Bernardino General Plan (County of San Bernardino, 2007) as Regional Industrial (IR) Land Use Zoning District, which was described in the land use discussion for San Bernardino County.

City of Rancho Cucamonga

The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located on lands zoned by the City of Rancho Cucamonga (City of Rancho Cucamonga, 2010) as Utility Corridor (UC) – Open Space District. According to the City of Rancho Cucamonga's Development Code (2009), the UC Open Space District zoning designation is intended to allow certain land uses within utility corridors, which could be compatible to both the utility function and surrounding existing or proposed land use.

City of Fontana

The Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located on lands zoned by the City of Fontana (City of Fontana, 2003a) as:

- C-2: General Commercial
- R-3: Multi Family Residential
- RMU: Regional Mixed Use
- R-PC: Residential Planned Community

The definition of RMU was provided previously for the Proposed Substation site. The City of Fontana's Zoning and Development Code (2008) defines the other zoning designations as follows:

> General Commercial (C-2) is a zoning district that accommodates a wider range of commercial activities than the Community Commercial (C-1) Zone, including retail and wholesale activities, automobile-related sales and services, offices and businesses providing administrative and professional services, and medical offices and clinics.
>
> Multi Family Residential (R-3) is the most intense multiple-family residential zoning district that permits development such as garden apartments, corridor apartments, condominiums and townhouses.
>
> Residential Planned Community (R-PC) is a zoning district that provides for managed growth or master-planned communities offering a mix of residential housing types and amenities with an approved specific plan or low density residential use.

As discussed previously for land use, the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would also cross through the following areas zoned as Specific Plan:

- Citrus Heights North Specific Plan
- Summit Heights Specific Plan
- Summit at Rosena Specific Plan
- West End Specific Plan
- Westgate Specific Plan

Staging Areas

The Proposed Project would require the establishment of temporary staging areas. A total of six possible staging areas have been identified, three in the City of Fontana, two in the City of Rancho Cucamonga, and one in the City of Rialto. These staging areas would be 0.5 to 5 acres in size, depending on the land availability and intended use. The land use designations and zoning classifications for each of these staging areas are described below.

Staging Area 1

Staging Area 1, an approximately 0.5-acre site located within Eastern T/S Rialto, is located south of the intersection of Foothill Boulevard and Pepper Avenue in the City of Rialto. According to the Land Use Element of the City of Rialto's Draft General Plan (2010a), the staging area has a Specific Plan (SP) land use designation and is within the Draft Foothill Boulevard Specific Plan. Once the Foothill Boulevard Specific Plan is approved and adopted by the City of Rialto, this Staging Area will be assigned a SP land use designation.

According to the City of Rialto Land Use Zoning Map (2002), Staging Area 1 is zoned as Central Commercial (C-2). The C-2 zoning designation is intended for commercial uses, such as retail stores and businesses (City of Rialto, 2010c).

Staging Area 2

Staging Area 2, an approximately 3-acre site, is located at the Etiwanda Substation near the intersection of Etiwanda Avenue and Whittram Avenue in the City of Rancho Cucamonga. The land use and zoning designations for the Etiwanda Substation Staging Area are the same as presented previously for the Etiwanda Substation.

Staging Area 3

Staging Area 3, an approximately 2-acre site, is located at the Proposed Substation site in the City of Fontana. Staging Area 3 would therefore have the same land use designation and zoning classification as the Proposed Substation site.

Staging Area 4

Staging Area 4, an approximately 4-acre site, is located northwest of the intersection of Foothill Boulevard and Etiwanda Avenue in the City of Rancho Cucamonga. According to the City of Rancho Cucamonga (2010), Staging Area 4 has a "General Commercial" land use designation and a Specific Plan zoning designation. The General Commercial land use designation applies to properties along major activity corridors. This designation provides for a wide range of community-oriented and regional-oriented commercial businesses, including businesses that cater to tourists traveling on Historic Route 66 (Foothill Boulevard) (City of Rancho Cucamonga, 2010). The Specific Plan zoning designation allows uses established by a development plan text approved by the City Council (City of Rancho Cucamonga, 2009).

Specifically, Staging Area 4 lies within the approved Foothill Boulevard Specific Plan (FSP) area. According to the FSP, Staging Area 4 is located within Subarea 4 of the FSP area and has a Community Commercial (CC) land use district designation. The CC land use district designation includes a variety of uses, which typically include drug stores, supermarkets, apparel shops, variety stores, and commercial recreation uses. In addition, the FSP identifies Staging Area 4 as an Activity Center Area. Activity Centers are defined in the FSP as selected intersections along the Foothill Boulevard Corridor defined as "Theme" or "Statement" areas which "tie" together the visual aspects of the Foothill Boulevard Corridor through the City, promote concentrated activity at these areas, and give identity and theme to the areas in which they are located (City of Rancho Cucamonga, 2009).

Staging Area 5

Staging Area 5, an approximately 5-acre site, is located along South Highland Avenue just west of the intersection of South Highland Avenue and Beech Avenue in the City of Fontana. According to the City of Fontana General Plan (2003a), Staging Area 5 has a Multi Family Residential (R-MF) land use designation. The R-MF land use designation is a residential category that allows for duplexes, condominiums, townhomes and apartments (City of Fontana, 2003a).

The City of Fontana Zoning District Map (2009) indicates Staging Area 5 is located within the California Landings Specific Plan. According to the California Landings Specific Plan (City of Fontana, 1994), Staging Area 5 has a Community Mixed Use (CMU) specific plan land use designation. The CMU specific plan land use designation is intended to allow for support of commercial uses for residential development within the Residential Planned Community areas. The CMU designation also allows for residential development of up to 12 dwelling units per net acre.

Staging Area 6

Staging Area 6, an approximately 0.5 acre site located within Foothill Service Center, is located northeast of the intersection of Foothill Boulevard and Cherry Avenue in the City of Fontana. According to the City of Fontana General Plan (2003a), Staging Area 6 has a Light Industrial (I-L) land use designation. The I-L land use designation is intended to include employee intensive uses, including business parks, research and development, technology centers, corporate and support office uses, “clean” industry and supporting retail uses, auto, truck and equipment sales and related services, and warehousing and distribution (City of Fontana, 2003a).

In addition, Staging Area 6 lies within the West End Specific Plan (City of Fontana, 1998). According to the West End Specific Plan, Staging Area 6 has a Business Park – Rail Service Industrial (BP3) specific plan land use designation. The BP3 specific plan land use designation is intended for the development of rail-served industrial uses.

4.10.2 Regulatory Setting

California Public Utilities Commission

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project, because the CPUC regulates and authorizes the construction of investor-owned public utility (IOU) facilities. Although such projects are exempt from local land use and zoning regulations and permitting, General Order No. 131-D, Section III.C requires "the utility to communicate with, and obtain the input of, local authorities regarding land-use matters and obtain any non-discretionary local permits." As part of its environmental review process, SCE considered local and State land use plans and policies, and local land use priorities and concerns.

County of San Bernardino General Plan

The County of San Bernardino General Plan (2007), which serves as the blue print document that guides future development within the County, provides Countywide and regional goals and policies. Most of the policies within the General Plan are countywide policies that address the County in its entirety. Relevant countywide policies listed in the San Bernardino County General Plan are listed below. Please note that there are no applicable Valley Planning Region policies.

Countywide Circulation and Infrastructure (CI)

- **CI 18.1:** Coordinate with SCE and other utility suppliers to make certain that adequate capacity and supply exists for current and planned development in the County

Countywide Conservation (CO)

- **CO 10.1:** Electric infrastructure is essential to serve growth and development in the County. Effective planning for electrical infrastructure requires collaboration between the major utilities and the County.

- **CO 10.2:** The location of electric facilities should be consistent with the County's General Plan, and the General Plan should recognize and reflect the need for new and upgraded electric facilities

City of Fontana General Plan

The City of Fontana General Plan (2003a) is the blueprint for the long-range physical development of the City, addressing direct City services, as well as services and activities undertaken by allied entities in the community. The City's General Plan was reviewed for applicable policies, which are provided below.[2]

[2] Please note that the policies provided in the General Plan are listed numerically by issue number and goal number. For example, Land Use Issue No. 1, Goal No. 1 contains five policies (numbered one through five). The issue number

Land Use

- **1.1:** Development shall be consistent with our land use plan and contribute to the maintenance of an economic base that provides high quality jobs for those who choose to both live and work in Fontana

- **1.5:** Areas designated as Regional Mixed Use on the Land Use Plan shall be developed with a mix of non-residential and residential uses responsive primarily to regional market and locational forces

- **2.1:** New development with potentially adverse impacts on existing neighborhoods or residents such as noise, traffic, emissions and storm water runoff, shall be located and designed so that quality of life and safety in existing neighborhoods are preserved

- **2.2:** Regionally beneficial land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors shall be sensitively integrated into our community

- **2.5:** Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses

Public Facilities, Services, and Infrastructure

- **9.3:** Collaboration with utility companies shall occur to achieve the maximum undergrounding of utility lines commensurate with available funds

City of Fontana Specific Plans

As discussed previously, the Proposed Project crosses through six specific plans within the City of Fontana, including California Landings Specific Plan, Citrus Heights North Specific Plan, Summit Heights Specific Plan, Summit at Rosena Specific Plan, West End Specific Plan, and Westgate Specific Plan. There are no specific policies from these specific plans that are relevant to the Proposed Project.

City of Rialto General Plan

There are no specific policies from the City of Rialto's Draft General Plan (2010) that are relevant to the Proposed Project.

Rialto Airport Specific Plan

There are no specific policies from the City of Rialto's Rialto Airport Specific Plan (2006) that are relevant to the Proposed Project.

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and goal number are the same unless there is more than one goal listed under an issue. To clarify what issue and goal a policy is listed under, the summary of applicable policies provides the issue/goal number first followed by the policy number. For example, Land Use 1.1 signifies that this is Land Use Issue No. 1/Goal No. 1, Policy No. 1.

City of Rancho Cucamonga General Plan

The City of Rancho Cucamonga General Plan (2010) is a long-range policy document that sets the foundation for many of the City's regulatory documents, including the Development Code, redevelopment plans, specific plans, community plans, master plans, and design guidelines. Relevant policies listed in the City of Rancho Cucamonga General Plan include the following:

Land Use (LU)

- **LU-7.1:** Concentrate heavy industrial and utility-related uses in the area immediately surrounding the electrical power plant

Community Design (Part of LU)

- **LU-11.2:** Continue to require the undergrounding of utility lines and facilities wherever feasible to minimize the unsightly appearance of overhead utility lines and utility enclosures

Community Services (CS)

- **CS-6.3:** Continue to incorporate, where feasible, regional and community trails along utility corridors and drainage channels

City of Rancho Cucamonga Specific Plans

According to the City of Rancho Cucamonga's General Plan (2010), there are a total of five adopted specific plans within the City. The Proposed Project crosses through three of these specific plans, including the Industrial Area Specific Plan, the Etiwanda Specific Plan and the Foothill Boulevard Specific Plan. The Industrial Area Specific Plan and the Foothill Boulevard Specific Plan do not contain any specific policies related to the Proposed Project. The following policy from the Etiwanda Specific Plan is relevant to the Proposed Project:

<u>Etiwanda Specific Plan</u>

Open Space

- **600**: Encourage the utilization of public easements, and utility corridors and flood control areas as usable open space

4.10.3 Significance Criteria

The significance criteria for assessing the impacts to land use and planning were obtained from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

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

CPUC General Order 131-D, Section XIV.B, states that: "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's jurisdiction. However in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 2010). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the County and city regulations are not applicable, as the County and cities do not have jurisdiction over the Proposed Project.

4.10.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not produce significant impacts for the following CEQA criteria:

Would the project physically divide an established community?

Construction and operation of the Proposed Project would not physically divide an existing community. The Proposed Substation site would be located on undeveloped land owned by SCE, and the Proposed Distribution Getaways would also be located on undeveloped land adjacent to the Proposed Substation site. In addition, the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities would not cross through existing residential communities in the cities of Rancho Cucamonga, Rialto or in unincorporated San Bernardino County. While the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would cross through existing residential communities in the City of Fontana, these Proposed Project components would be within SCE's existing transmission ROW. Therefore, no impact would occur.

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?

The majority of the Proposed Project, including the Proposed Substation site, Proposed Distribution Getaways, most of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities, and part of the Proposed Alder Subtransmission Line Route and Proposed Telecommunication Facilities, are located within the City of Fontana. All of the City of Fontana land use and zoning designations presented previously in Section 4.10.1, Environmental Setting, permit the use of utility structures and installations. Therefore, the Proposed Substation site, Proposed Distribution Getaways, and the portions of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities within the City of Fontana would be compatible with the City of Fontana's land use, zoning, and future planning.

The Etiwanda Substation and a small portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located within the City of Rancho Cucamonga. All of the City of Rancho Cucamonga land use and zoning designations presented previously in Section 4.10.1, Environmental Setting, permit the use of utility structures and installations (Collier, 2010). Therefore, the Etiwanda Substation and the portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities within the City of Rancho Cucamonga would be compatible with the City of Rancho Cucamonga's land use, zoning, and future planning.

A small portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located within an unincorporated portion of the County of San Bernardino and would have a Regional Industrial (IR) land use zoning district designation. The IR land use zoning district designation permits the use of electrical facilities. Therefore, the portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities within an unincorporated portion of the County of San Bernardino would be compatible with the County of San Bernardino's land use zoning district and future planning.

The Alder Substation and portions of the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities would be located within the City of Rialto. As discussed previously in Section 4.10.1, Environmental Setting, these components of the Proposed Project would be located in the Rialto Airport Specific Plan. These components would not conflict with the City of Rialto Airport Specific Plan and City of Rialto Municipal Code.

A portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities located in the City of Fontana and the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities located in the cities of Fontana and Rialto would not be located on SCE property or on SCE's existing transmission ROW. Although these portions of the Proposed Project would

change the land uses in the areas in which they would be located, the new land uses would not conflict with the City of Fontana and City of Rialto land use, zoning, and future planning.

The Proposed Project is also compatible with the existing and nearby agricultural, residential, industrial, and commercial uses. Construction and operation of the Proposed Project would not be expected to create significant new land use impacts.

The Proposed Project may be inconsistent with the following local policy:

City of Rancho Cucamonga

- **LU-11.2:** Continue to require the undergrounding of utility lines and facilities wherever feasible to minimize the unsightly appearance of overhead utility lines and utility enclosures

The city of Rancho Cucamonga is pre-empted from regulating the project pursuant to G.O. 131 D, therefore the above mentioned policy is not applicable to the Proposed Project. Construction and operation of the Proposed Project would not conflict with an applicable environmental plan, policy, or regulation of an agency with jurisdiction over the Proposed Project. There would be no impact.

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

The Proposed Project is not located within a habitat conservation plan or natural community plan. Therefore, no impact would occur.

4.10.5 Alternative Substation Site

The Alternative Substation site is located on a 9.6-acre privately owned vacant parcel. The parcel is located on the southeast corner of Casa Grande Avenue and Sierra Avenue in the City of Fontana. The parcel is bounded by Casa Grande Avenue to the north, Sierra Avenue to the west, a vacant parcel owned by SCE to the south, and SCE's existing transmission ROW to the east. SCE would establish vehicular access to the Alternative Substation site from Sierra Avenue.

According to the City of Fontana General Plan (2003a), the Alternative Substation site would have the same land use designation and zoning classifications as the Proposed Substation site (i.e., Regional Mixed Use [RMU] land use designation and RMU zoning classification), which were discussed previously.

The Proposed Substation site and the Alternative Substation site are located in close proximity to one another and would be subject to the same regulatory policies. As discussed previously, the Proposed Substation site would result in no impacts to land use and planning. Therefore, the Alternative Substation site would also result in no impacts to land use and planning.

4.10.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes would consist of both the Proposed Etiwanda Subtransmission Source Line Route and the Alternative Alder Subtransmission Source Line Route B. Like the Proposed Alder Subtransmission Source Line Route, the Alternative Alder Subtransmission Source Line Route B would be located within both the cities of Rialto and Fontana. However, the Alternative Alder Subtransmission Source Line Route B does not follow the same route as the Proposed Alder Subtransmission Source Line Route and would, therefore, have different land use designations and zoning classifications, which are described below.

Land Use Designations

City of Rialto

Within the City of Rialto, the Alternative Alder Subtransmission Source Line Route B would include lands designated by the City of Rialto Draft General Plan (2010a) as:

- SP: Specific Plan
- GI: General Industrial
- LI: Light Industrial
- BP: Business Park
- R6: Residential 6

The Land Use Element of the City of Rialto General Plan (2010a) defines the above land use designation as follows:

> The Specific Plan (SP) land use designation requires the implementation of a specific plan. The specific plan will specify the land use designations and must be consistent with the General Plan.
>
> The General Industrial (GI) land use designation allows for a broad range of heavy industrial activities requiring large areas of land with convenient access for trucks and rail. Permitted uses include manufacturing and processing, warehousing and distribution, chemical or petroleum products processing and refining, heavy equipment operations, and similar uses.
>
> The Light Industrial (LI) land use designation allows light industrial activity such as processing, packaging, machinery repair, fabrication, distribution, warehousing and storage, research and development, and similar uses which are low impact. Uses specifically prohibited include warehousing, trucking and transportation related, heavy manufacturing, and any use involving outdoor activities.

> The Business Park (BP) land use designation allows a mix of commercial, office, research and development, laboratories, and light industrial uses developed in a complementary manner and displaying high-quality architecture and site design.
>
> The Residential 6 (R6) land use designation allows for residential development at low densities, development consisting of detached units in suburban-style subdivisions, with one unit per lot. Additional permitted uses, consistent with zoning regulations, include group homes, public facilities, and utility support systems.

Currently, the Alternative Alder Subtransmission Source Line Route B crosses through the Rialto Airport Specific Plan area. As noted previously in the Alder Substation discussion, the Rialto Airport Specific Plan area will be replaced by the Renaissance Specific Plan, approximately one year after the adoption of the general plan (City of Rialto, 2010a). However, as the Draft Renaissance Specific Plan has not been adopted, the Alternative Alder Subtransmission Source Line Route B is subject to the existing adopted Rialto Airport Specific Plan. The Alternative Alder Subtransmission Source Line Route B crosses through the following land uses designated by the Rialto Airport Specific Plan (City of Rialto, 2006) as:

- I-PID: Planned Industrial Development
- I-GM: General Manufacturing
- O/FC: Office/Freeway Commercial
- RFC: Regional Freeway Commercial
- NC: Neighborhood Commercial

The I-PID, I-GM and RFC land use designations were defined previously. The Rialto Airport Specific Plan defines the O/FC and NC land use designation as the following:

> The Office/Freeway Commercial (O/FC) specific plan land use designation allows for mixed use and buffer zone.
>
> The Neighborhood Commercial (NC) specific plan land use designation allows for less than ten acres of neighborhood commercial uses.

City of Fontana

Within the City of Fontana, the Alternative Alder Subtransmission Source Line Route B would have the same land use designation as the Proposed Alder Subtransmission Source Line Route (City of Fontana, 2003a). This land use designation is Regional Mixed Use (RMU) and was defined previously in the Proposed Alder Subtransmission Source Line Route and Telecommunication Facilities discussion.

Zoning

City of Rialto

Within the City of Rialto, the Alternative Alder Subtransmission Source Line Route B would be located on lands zoned by the City of Rialto Draft General Plan (2010a) as:

- I-GM: General Manufacturing
- I-PID: Planned Industrial Development
- M-1: Light Industrial
- O/FC: Office/Freeway Commercial
- OS-L: Open Space - Landfill
- R-1C: Single Family Residential
- RFC: Regional Freeway Commercial

The I-GM, I-PID, O/FC, OS-L and RFC zoning designations were defined previously. The City of Rialto Municipal Code (2010c) defines the M-1 and R-1C zoning designations as the following:

> The Light Industrial (M-1) zoning designation is intended for the use of light manufacturing, processing or treatment of products.
>
> The Single Family Residential (R-1C) zoning designation is intended for the use of single family residential.

The I-GM, I-PID, O/FC, OS-L, and RFC zoning designations are the same as the Rialto Airport Specific Plan land use designations.

City of Fontana

Within the City of Fontana, the Alternative Alder Subtransmission Source Line Route B would have the same zoning designation as the Proposed Alder Subtransmission Source Line Route (City of Fontana, 2003a). This zoning designation is Regional Mixed Use (RMU) and was defined previously in the Proposed Alder Subtransmission Source Line Route and Telecommunication Facilities discussion.

Both the Proposed Subtransmission Source Line Routes and the Alternative Subtransmission Source Line Routes are in close proximity to one another and would be subject to the same regulatory policies. As discussed previously, the Proposed Subtransmission Source Line Routes would result in no impacts to land use and planning. Therefore, the Alternative Subtransmission Source Line Routes would also result in no impacts to land use and planning.

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4.11 Mineral Resources

This section describes the mineral resources in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

4.11.1 Environmental Setting

Mineral resources include oil, natural gas, and metallic and non-metallic deposits. The mineral resources in San Bernardino County include extensive deposits of sand and aggregates, boron, rare earths, and salt (URS, 2007). These deposits are an important part of the economic well-being of the County and industries outside of the County.

No metallic mineral deposits have been identified within the boundaries of the Proposed Project (United States Geological Survey, 2010). In addition, there are no oil or natural gas fields located at or near the Proposed Project (California Department of Conservation, 2004 and 2010).

Non-metallic deposits have been extracted near the Proposed Project. There are two active mines and one closed mine within 2 miles of the Proposed Substation site. The closest active mine (Mid-Valley Sanitary Landfill) is located approximately 2,000 feet southeast of the Proposed Substation site and adjacent to approximately three-quarters of the Proposed Alder Subtransmission Source Line Route. An estimated 80 to 100 million tons of aggregate reserves will be generated from excavating sand and gravel from three pits over the 25-to-35-year life of the landfill (URS, 2007). A second active mine, Lytle Creek Pit (United States Geological Survey record number 4016), is located approximately 1.8 miles to the east of the Proposed Substation site. This mine produces sand and gravel from surface operations (United States Geological Survey, 2010). The third mine, Lytle Creek Pit B (United States Geological Survey record number 10238065), located approximately 1.9 miles northeast of the Proposed Substation site, is listed as a past producer of sand and gravel from surface operations (United States Geological Survey, 2010).

The Surface Mining and Reclamation Act (SMARA) of 1975 was enacted to address mineral conservation in California. SMARA requires the State Geologist to conduct research and prepare reports that classify lands that contain mineral deposits that meet marketability and threshold value criteria adopted by the California State Mining and Geology Board (SMGB). These classifications are by Mineral Resource Zones (MRZs). There are four MRZ classifications:

- 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 for their presence exists

- 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 zone

MRZ classifications are determined without regard for current land use; therefore, classification reports prepared for metropolitan areas also identify deposits or portions of deposits that are classified as MRZ-2 and that have not been preempted from mineral production by incompatible land uses, such as urbanization. These areas, called resource sectors, are used to focus the attention of land-use planners and local governments on the areas that remain potentially available for future mineral extraction. Resource sectors are considered by the SMGB for designation as mineral resources of regional or statewide significance.

Classifications and designations for aggregate resources, such as sand, gravel, and crushed stone, in San Bernardino County were completed by SMGB in 1987 (SMGB, 1987), and the classifications were updated in 2008 (SMGB, 2008). The 2008 update identified additional MRZs and resource sectors that were not identified in 1987. The two aggregate resource sectors (Sectors J and K) that were added in the 2008 update have not been designated by the SMGB as having regional or statewide importance, but they may be considered for designation in the future.

The Proposed and Alternative Substation sites, the Proposed Distribution Getaways, and the Proposed and Alternative Alder Subtransmission Source Line Routes are located entirely in areas classified as MRZ-2, which are areas where aggregate resources are known or likely to be present. Portions of the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities are also in areas classified as MRZ-2.

The Proposed and Alternative Substation sites, the Proposed Distribution Getaways, and portions of the Proposed and Alternative Subtransmission Source Line Routes and Telecommunication Facilities located within the City of Fontana are in Sector J, which is an area potentially available for future mineral extraction. A portion of the proposed Alder Subtransmission Source Line Route within the City of Rialto is also in a resource sector, but the 2008 update indicated that the resource sector is no longer potentially available for aggregate extraction because of changes in land use that occurred after the 1987 designations.

4.11.2 Regulatory Setting

California Surface Mining and Reclamation Act

SMARA mandates the classification of valuable lands that are subject to urban expansion or other irreversible actions in order to protect mineral resources in the State. SMARA also allows the State to designate lands containing mineral deposits of regional or statewide significance. The law provides for significant mineral resources to be

recognized and considered before land use decisions are made that may compromise the availability of these resources.

County of San Bernardino General Plan

The County of San Bernardino General Plan (2007) recognizes the importance of mineral resources and has developed policies to protect the current and future extraction of mineral resources that are important to the County's economy while minimizing impact of this use on the public and the environment. The County has not incorporated the State MRZ or resource sector classifications into its General Plan, because the 2008 update of MRZ and resource sector classifications were not available at the time that the General Plan was adopted in 2007. The County will incorporate these classifications when the General Plan is updated to protect the access and economic use of these resources (County of San Bernardino, 2007).

City of Fontana General Plan

According to the General Plan for the City of Fontana, the most significant mineral resources within the City's planning area are sand and gravel deposits in the alluvial fan south of the San Gabriel foothills. Currently, there are no active sand and gravel mining operations within the City limits of Fontana, and, according to the General Plan, new surface mining would likely be met with strong opposition; therefore, the conservation of mineral resources lands was not included in the proposed Open Space and Conservation Element of the General Plan (City of Fontana, 2003).

City of Rialto General Plan

The City of Rialto General Plan presents the classifications in the 2008 State update of MRZs and resource sectors in San Bernardino County (City of Rialto, 2010). Areas specifically designated in the City of Rialto General Plan as containing regionally significant aggregate resources are predominantly located in the Lytle Creek area. In addition, sand and gravel are actively being excavated from the Mid-Valley Sanitary Landfill expansion located in the City of Rialto. According to the General Plan, these designated areas will remain undeveloped with urban uses as long as extraction activities continue or are economically viable (City of Rialto, 2010).

City of Rancho Cucamonga General Plan

The City of Rancho Cucamonga General Plan identifies regionally significant aggregate resource sectors, but it does not incorporate the State MRZ classifications. In the General Plan, the City recognizes the value of regionally significant aggregate resource areas designated within the City's planning area. However, the City also concluded that the existence of aggregate resources should not preclude development for other purposes, provided that such development is consistent with the General Plan (City of Rancho Cucamonga, 2010).

4.11.3 Significance Criteria

The significance criteria for assessing the impacts to mineral resources come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- 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

- Result in loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan

4.11.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criterion:

Would the project result in 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 City of Fontana General Plan does not designate mineral resource recovery sites. Although the County of San Bernardino General Plan does not currently incorporate the State classifications and designations, they will be incorporated when the General Plan is updated (County of San Bernardino, 2007). However, the Proposed Project components located within unincorporated San Bernardino County are not located within areas classified as MRZ-2 or as aggregate resource sectors. The City of Rancho Cucamonga General Plan incorporates aggregate resource sectors designated by the State, but the Proposed Project components located within the City of Rancho Cucamonga are not located within these sectors. The City of Rialto General Plan presents the same classifications and designations as the State, and portions of the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities within the City of Rialto would be in an area classified as MRZ-2. However, these components of the Proposed Project would not be located in areas designated in the City of Rialto General Plan as potential mineral resource recovery sites.

Therefore, construction and operation of the Proposed Project would not result in loss of availability of a locally important mineral resource recovery site delineated in the general plans for the County of San Bernardino and the cities of Rancho Cucamonga, Fontana, and Rialto.

Construction Impacts

Construction of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

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?

None of the Proposed Project components in the Cities of Rialto or Rancho Cucamonga or in unincorporated San Bernardino County are located in a resource sector that has been designated as containing mineral deposits of regional or statewide significance.

The Proposed Substation site, Proposed Distribution Getaways, and portions of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities located within the City of Fontana are in an area identified by the State as an aggregate resource sector (SMGB, 2008). However, this sector has not yet been designated as having regional or statewide importance (SMGB, 2008). Even if this resource sector were to be designated in the future as having regional or statewide importance, the area required for construction of the components of the Proposed Project located within this resource sector would be less than 2 percent of the sector and would not represent a significant area that would be unavailable for exploration and extraction of mineral resources. Furthermore, the City of Fontana General Plan concluded that new surface mining would likely be met with strong opposition, and the conservation of mineral resource land was not included in the proposed Open Space and Conservation Element of the General Plan (City of Fontana, 2003). As a result, construction of the Proposed Project would not result in a significant loss of availability of a known mineral resource that would be of value to the region and the State. Impacts would be less than significant.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

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?

The effects to mineral resources during operation of the Proposed Project would be the same as the effects during construction, as described above in Construction Impacts. Operation of the Proposed Project would not result in a significant loss of availability of a known mineral resource that would be of value to the region and the State. Impacts would be less than significant.

4.11.5 Alternative Substation Site

The mineral resources at the Alternative Substation site are the same as at the Proposed Substation site. As a result, impacts from the Alternative Substation site would be less than significant.

4.11.6 Alternative Subtransmission Source Line Routes

The mineral resources at the Alternative Subtransmission Source Line Routes are the same as at the Proposed Subtransmission Source Line Routes. As a result, impacts from the Alternative Subtransmission Source Line Routes would be less than significant.

4.11.7 References

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4.12 Noise

This section describes the ambient noise conditions in the vicinity of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

4.12.1 Environmental Setting

By definition, “noise” is a sound that is considered unpleasant and unwanted. Whether a sound is considered unpleasant depends on the individual who hears the sound and the setting and circumstance under which the sound is heard. While performing certain tasks, people expect and, as such, accept certain sounds that may be considered unpleasant under other circumstances. For example, if a person works in a typical office environment, sounds from printers, copiers, telephones, and keyboards are generally acceptable and not considered unduly unpleasant or unwanted. By comparison, when resting or relaxing, these same sounds may be intolerable to some individuals. Because an individual's tolerance for noise varies by setting, some land uses are more sensitive to changes in the ambient noise environment. Noise-sensitive receptors include, but are not limited to, schools, hospitals, convalescence homes, long-term care facilities, mental care facilities, residential uses, places of worship, libraries, and passive recreation areas.

Decibel (dB) is the unit of measure used to describe the loudness of sound. Because the range of sound that humans can hear is quite wide, the dB scale is logarithmic, making calculations more manageable. A number of factors affect people’s perception of sound. These factors include the actual level of noise, the frequencies involved, the period of exposure to the sound, and changes or fluctuations in the sound level during exposure. In order to measure sound in a manner that accurately reflects human perception, several measuring systems or scales have been developed. The A-weighted scale reflects the fact that the human ear does not perceive all pitches or frequencies equally; therefore, decibel measurements are adjusted (or weighted) to compensate for human beings' lack of sensitivity to low-pitched and high-pitched sounds. The adjusted unit is known as the A-weighted decibel (dBA).

The subjective human perception of the loudness of a noise source will usually be different than what is measured. Generally, a 3-dBA increase in ambient noise levels is considered the minimum threshold at which most people can detect a change in the noise environment; an increase of 10 dBA is perceived as a doubling of the ambient noise level. As a point of reference, a conversation between two people would typically measure about 60 to 65 dBA, and prolonged noise levels above 85 dBA can cause hearing loss.

To reflect the fact that ambient noise levels from various sources vary over time, they are generally expressed as an equivalent noise level (L_{eq}), which is a computed steady noise level over a specified period of time as the noise level varies. L_{eq} values are commonly expressed for one-hour periods, but different averaging times may be specified.

For the evaluation of community noise effects, Community Noise Equivalent Level is often used. It represents the average A-weighted noise level during a 24-hour day with a 5-dB addition for the period from 7:00 p.m. to 10:00 p.m. and a 10-dB addition for the period from 10:00 p.m. to 7:00 a.m.

The Proposed Project would primarily be located in the Cities of Fontana, Rialto, and Rancho Cucamonga, which are located in San Bernardino County. A small portion of the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities would also be located in unincorporated San Bernardino County. Noise levels in these areas are those typical of suburban and rural residential communities. The primary source of noise is vehicular traffic on the major roads and streets of the area.

Community Noise Survey

Ambient noise levels in the Cities of Fontana, Rialto, and Rancho Cucamonga, and in the unincorporated portion of San Bernardino County in which the Proposed Project would be located, are influenced by traffic on major roads and highways such as the 15 Freeway and the 210 Freeway. A community noise survey was conducted on July 7, 2010, and on September 14 through 15, 2010, to document the existing noise environment at noise-sensitive receptors and existing noise sources within the vicinity of the Proposed Project. Noise-sensitive receptors in the Proposed Project area were defined as residences, churches, and schools.

As part of site reconnaissance, noise-sensitive receptors located near the Proposed and Alternative Substation sites were determined to include residences north of West Casa Grande Drive. These residences are approximately 500 feet north of the Proposed Substation site and approximately 800 feet east of the Alternative Substation site. All other noise sensitive receptors are located at distances of 1,000 feet or greater from either the Proposed or Alternative Substation sites.

Noise-sensitive land uses along the Proposed Subtransmission Source Line Routes and Telecommunication Facilities include two schools (KinderCare Learning Center, 300 feet north west of the Proposed Etiwanda Subtransmission Source Line Route, and Heritage Intermediate School, 450 feet southeast of the Proposed Etiwanda Subtransmission Source Route), the Water of Life Church (500 feet northwest of the Proposed Etiwanda Subtransmission Source Line Route), and residences located approximately 80 feet from the Proposed and Alternative Subtransmission Source Line Routes and Proposed Telecommunication Facilities.

The dominant noise source identified during the ambient noise survey was traffic from the local area roadway network and wind noise in areas with very low traffic.

Monitoring of noise levels was conducted in accordance with the American National Standards Institute (ANSI) standards using a Larson Davis Laboratories (LDL) Model 820 sound-level meter. The sound-level meter was calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure that the meters were measuring

accurately. The equipment used meets all pertinent specifications of the ANSI for Type 1 sound-level meters (ANSI S1.4-1983[R2006]).

Community noise survey measurement locations are shown in Figure 4.12, Noise Measurement Locations. Short-term (15-minute) measurements were made during the daytime on July 7, 2010, at each of the six locations shown in the figure, and measurements were made over a 25-hour period at Location 1 (the western end of West Casa Grande Drive, which is the measurement location closest to the Proposed Substation site) on September 14 through 15, 2010.

The L_{eq}, the maximum noise level (L_{max}), the minimum noise level, and the noise level exceeded 90 percent of a specific time period (L_{90}) were taken at each short-term ambient noise measurement location and are presented in Table 4.12-1, Summary of Monitored Short-Term Daytime Ambient Noise Levels. Detailed noise measurement data is provided in Appendix F, Noise Analysis Data. During the survey, average daytime ambient noise levels ranged from 47 to 70 dBA L_{eq}, with maximum noise levels that ranged from 57 to 84 dBA L_{max}. Based on the L_{90} measurements, background noise levels in the project area are generally below 50 dBA, except at Location 5 (63 dBA).

Table 4.12-1 Summary of Monitored Short-Term Daytime Ambient Noise Levels

Site	Location	Time / Date	Primary Noise Source	A-Weighted Sound Level (dBA)			
				L_{eq}	L_{min}	L_{max}	L_{90}
1	Western terminus of West Casa Grande Drive	12:04 p.m. 7/7/10	Wind	47	42	62	44
2	West Casa Grande Drive and North Silverberry Drive	12:37 p.m. 7/7/10	Local Traffic	60	42	77	47
3	50 feet west of west Locust Avenue	1:02 p.m. 7/7/10	Local Traffic	68	46	84	51
4	Northern terminus of Pineleaf Avenue	1:41 p.m. 7/7/10	Wind	49	45	57	47
5	Northern terminus of West Liberty Parkway, east of Kinder Care Learning Center	2:27 p.m. 7/7/10	I-15 Traffic	70	56	81	63
6	Creek Side Drive east of Southern California Edison Right of Way	3:04 p.m. 7/7/10	Wind	52	48	58	50

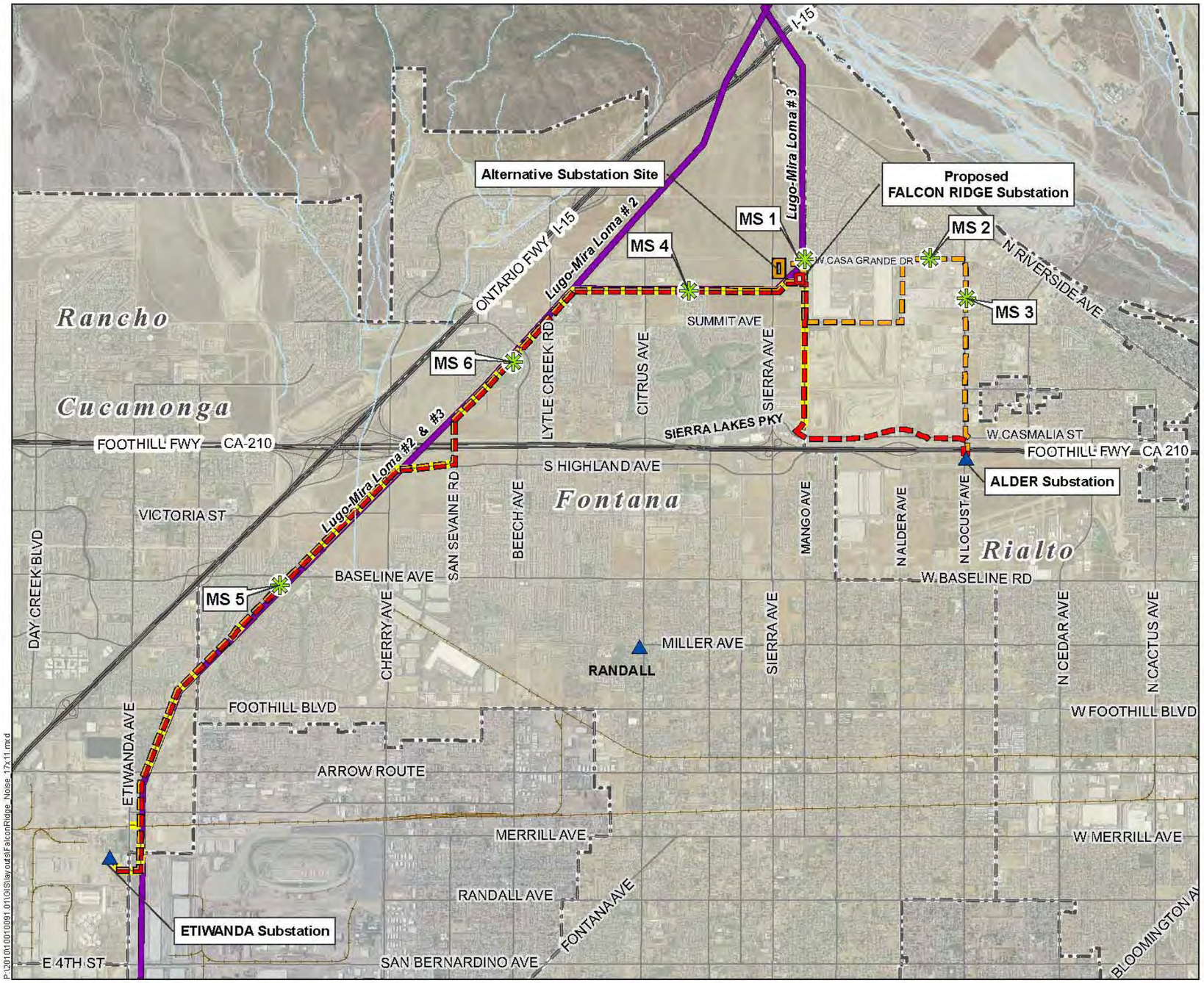
Notes: L_{eq} = equivalent noise level; L_{min} = minimum noise level;
L_{max} = maximum noise level; L_{90} = noise level exceeded 90 percent of a specific period of time
Source: Data collected by AECOM, 2010

The hourly and 25-hour L_{eq} measured at the western end of Casa Grande Drive are presented in Table 4.12-2, Summary of 25-Hour Ambient Noise Levels. Based on the 25-hour noise measurements, the quietest period of the night, 43 dBA L_{eq}, occured between 11:00 p.m. and 12:00 a.m.. The primary noise source during the quietest period was traffic on the 15 Freeway with occasional contributions from local traffic.

Table 4.12-2 Summary of 25-Hour Ambient Noise Levels

Time	Date	Noise Level (dBA L_{eq})
4:00 PM	9/14/2010	51
5:00 PM	9/14/2010	51
6:00 PM	9/14/2010	49
7:00 PM	9/14/2010	59
8:00 PM	9/14/2010	46
9:00 PM	9/14/2010	45
10:00 PM	9/14/2010	45
11:00 PM	9/14/2010	43
12:00 AM	9/15/2010	43
1:00 AM	9/15/2010	45
2:00 AM	9/15/2010	45
3:00 AM	9/15/2010	48
4:00 AM	9/15/2010	49
5:00 AM	9/15/2010	51
6:00 AM	9/15/2010	54
7:00 AM	9/15/2010	54
8:00 AM	9/15/2010	50
9:00 AM	9/15/2010	51
10:00 AM	9/15/2010	52
11:00 AM	9/15/2010	50
12:00 PM	9/15/2010	51
1:00 PM	9/15/2010	48
2:00 PM	9/15/2010	52
3:00 PM	9/15/2010	51
4:00 PM	9/15/2010	47
25-Hour Leq		51

Notes: L_{eq} = equivalent noise level
Source: Data collected by AECOM, 2010



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Falcon Ridge Substation Project

Figure 4.12

Noise Measurement Locations

Measurement Locations

Noise Measurement Locations

Source: AECOM 2010

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**

Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

11/3/2010

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4.12.2 Regulatory Setting

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA), Office of Noise Abatement and Control, was originally established to coordinate federal noise control activities. After inception, EPA's Office of Noise Abatement and Control established the federal Noise Control Act of 1972, which established programs and guidelines to identify and address the effects of noise on public health and welfare and the environment. Administrators of EPA determined in 1981 that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in the rulings by EPA in prior years remain upheld by designated federal agencies.

State of California

The State of California adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

Vibration and Groundborne Noise Impact Regulations

The California Environmental Quality Act (CEQA) states that the potential for excessive groundborne noise and vibration levels must be analyzed; however, CEQA does not define the term "excessive" vibration. Numerous public and private organizations and governing bodies have provided guidelines to assist in the analysis of groundborne noise and vibration; however, federal, state, and local governments have yet to establish specific groundborne noise and vibration requirements. Additionally, there are no federal, state, or local vibration regulations or guidelines directly applicable to the Proposed Project.

Publications by the Federal Transit Administration (FTA) and the California Department of Transportation (Caltrans) are sources of information for the analysis of groundborne noise and vibration relating to transportation and construction-induced vibration. The Proposed Project is not subject to FTA or Caltrans regulations; however, these guidelines serve as a useful tool to evaluate vibration impacts. Therefore, FTA and Caltrans guidance documents are being used to assess the impacts of the Proposed Project, as presented in Section 4.12.4, Impact Analysis. Caltrans guidelines recommend that a standard of 0.2 inches per second (in/sec) peak particle velocity (PPV) not be exceeded for the protection of normal residential buildings and that 0.08 in/sec PPV not be exceeded for the protection of old or historically significant structures (Caltrans, 2004). With respect to human response within residential uses (i.e., annoyance, sleep disruption), FTA recommends a maximum acceptable vibration standard of 80 vibration decibels (VdB) (FTA, 2006).

City of Fontana

The two regulatory documents relating to noise in the City of Fontana are the Noise Element of the General Plan and the Fontana Municipal Code. The General Plan policies are primarily related to compatibility standards for various land uses as compared to the noise environment and do not apply to an unattended substation or subtransmission lines. Therefore, the regulatory noise document that applies to the Proposed Project is the Fontana Municipal Code.

Fontana regulates noise in the Municipal Code, Chapter 18, Article II, Noise. The City of Fontana Municipal Code states that "it shall be unlawful for any person within the city to make, cause, or to continue to make or cause, loud, excessive, impulsive or intrusive sound or noise that annoys or disturbs persons of ordinary sensibilities." However, the Municipal Code does not provide specific noise level limits. Additionally, noise from construction is only permitted if the construction activities occur between 7:00 a.m. and 6:00 p.m. during weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays.

City of Rialto

The two regulatory documents relating to noise in the City of Rialto are the Noise Element of the General Plan and the Rialto Municipal Code. The General Plan policies are primarily related to compatibility standards for various land uses as compared to the noise environment and do not apply to an unattended substation or subtransmission lines. Therefore, the regulatory document that applies to the Proposed Project is the Rialto Municipal Code.

Rialto regulates noise in the Municipal Code, Chapter 9.50, Noise Regulations. Section 9.50.030 provides a list of prohibited acts; however, Chapter 9.50 does not specify specific noise level limits at property lines. Section 9.50.070 exempts noise generated by construction activities (e.g., operation of tools or equipment, drilling, repair) from October 1 through April 30, between the hours of 7:00 a.m. and 5:30 p.m., Monday through Friday, and from May 1 though September 30 between 6:00 a.m. and 7:00 p.m. Monday through Friday. Construction on Saturdays is exempt between 8:00 a.m. and 5:00 p.m. throughout the year. Construction occurring outside the allowed hours or on Sundays and federal holidays would be subject to the noise ordinance unless a variance is obtained. Additionally, Section 9.50.060 exempts "[c]onstruction, operation, maintenance and repairs of equipment, apparatus or facilities …including.... those of public utilities subject to the regulatory jurisdiction of the California Public Utilities Commission."

City of Rancho Cucamonga

The two regulatory documents relating to noise in the City of Rancho Cucamonga are the Noise Element of the General Plan and the Rancho Cucamonga Municipal Code. The General Plan policies are primarily related to compatibility standards for various land uses as compared to the noise environment and do not apply to an unattended substation or subtransmission lines. Therefore, the regulatory document that applies to the Proposed Project is the Rancho Cucamonga Municipal Code.

The Rancho Cucamonga Municipal Code (Title 17) governs noise from non-transportation sources. Section 17.08.080(D) limits daytime (7:00 a.m. to 10:00 p.m.) residential exterior noise to 60 dBA and nighttime (10:00 p.m. to 7:00 a.m.) residential exterior noise to 55 dBA. Section 17.02.120 provides specific numeric correction factors to be applied for determination of compliance with the municipal code. Section 17.08.080(C) exempts construction activities occurring between the hours of 6:30 a.m. and 8:00 p.m., Monday through Saturday from the noise limits. Construction is subject to the noise level limits identified in Section 17.08.080(D) when it occurs outside the exempted hours or at any time on Sundays and federal holidays. Section 17.08.080(E) prohibits creation of vibrations from any source that can be detected at or beyond the property line of an affected property.

County of San Bernardino

The two regulatory documents relating to noise in the County of San Bernardino are the Noise Element of the General Plan and the San Bernardino Code of Ordinances (Title 8). The General Plan policies are primarily related to compatibility standards for various land uses as compared to the noise environment and do not apply to an unattended substation or subtransmission lines. Therefore, the regulatory document is the San Bernardino County Code of Ordinances (Title 8).

The County of San Bernardino Code of Ordinances (Title 8) governs noise. Section 83.01.080(c) provides daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise standards for stationary sources affecting various land uses. Since the portions of the Proposed Etiwanda Substransmission Source Line Route and Proposed Telecommunication Facilities located within unincorporated San Bernardino County are in an industrial area, the noise limits for industrial land uses (70 dBA during both daytime and nighttime) would be applicable. Section 83.01.080(g) exempts temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and federal holidays.

4.12.3 Significance Criteria

The significance criteria for assessing the impacts from noise levels and groundborne vibration come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would cause:

- 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
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

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

- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the project would expose people residing or working in the project area to excessive noise levels

- For a project within the vicinity of a private airstrip, the project would expose people residing or working in the project area to excessive noise levels

The California Public Utilities Commission (CPUC) General Order 131-D, Section XIV.B states that "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's jurisdiction. However in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and city regulations are not binding as the county and cities do not have jurisdiction over the Proposed Project.

4.12.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Rialto Municipal Airport is located approximately 2 miles southeast of the Proposed Substation site and approximately 0.5 mile from the Alder Substation. The Rialto Municipal Airport is a general aviation airport used by privately operated and chartered aircraft; it is not used by commercial airlines (Scanlan, 2010). The Rialto Municipal Airport was approved for closure by Congress in 2005, and the City of Rialto has since initiated the process to close the airport. However, the Rialto Municipal Airport is currently open and is projected to close within the next five to 10 years (2015-2020) (Scanlan, 2010).

The acceptable level of aircraft noise for persons living in the vicinity of airports specified in Title 21 of the California Code of Regulations, Section 5012 is a Community Noise Equivalent Level (CNEL)[1] of 65 dBA. The Comprehensive Land Use Plan

[1] CNEL is an average A-weighted sound level measured over a 24-hour time period, adjusted during the evening and nighttime hours. A CNEL noise measurement is obtained after adding 5.0 decibels to sound levels occurring during the evening from 7:00 p.m. to 10:00 p.m., and 10.0 dB to sound levels occurring

(CLUP) for the Rialto Municipal airport (County of San Bernardino, 1991) identifies areas in the vicinity of the airport where the CNEL exceeds 65 dBA. The Proposed Project is not located within these areas. Therefore, the Proposed Project would not expose people working during construction or operation to excessive noise levels attributable to a public airport or public use airport. There is no impact.

For a project within the vicinity of a private airstrip, where the project would expose people residing or working in the project area to excessive noise levels?

There are no private airstrips located within the vicinity of the Proposed Project. Therefore, the Proposed Project would not expose people working during construction or operation to excessive noise levels attributable to a private airstrip. There is no impact.

Construction Impacts

Construction of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

Would the project cause 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?

Construction of the Proposed Substation, the Distribution Getaways, and the Portions of the Proposed Subtransmission Source Line Routes and Telecommunication Facilities located within the City of Fontana would be subject to the City of Fontana Municipal Code. As discussed in Section 4.12.2, Regulatory Setting, the City of Fontana Municipal Code states that "it shall be unlawful for any person within the city to make, cause, or to continue to make or cause, loud, excessive, impulsive or intrusive sound or noise that annoys or disturbs persons of ordinary sensibilities." However, the Municipal Code does not provide specific noise level limits. As discussed below regarding temporary increases in noise levels during construction, construction noise is expected to be noticeable, but the noise levels would typically be considered acceptable for construction activities during daytime hours. The City of Fontana Municipal Code also only allows noise from construction activities if they occur between 7:00 a.m. and 6:00 p.m. during weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays. Construction activities associated with the Proposed Project within the City of Fontana would occur in accordance with this restriction. If work is required outside the allowed hours, Southern California Edison Company (SCE) would obtain a noise variance from the City. Therefore, noise during construction of the Proposed Project within the City of Fontana would comply with standards established in the City of Fontana Municipal Code.

The City of Rialto's Municipal Code exempts construction of public utilities subject to the regulatory jurisdiction of the CPUC from the Noise Regulations. Therefore, noise from construction activities within the City of Rialto, including construction of the

during the nighttime from 10:00 p.m. to 7:00 a.m. The 5.0 and 10.0-decibel adjustments are applied to account for most people's increased noise sensitivity during the evening and nighttime hours.

portion of the Proposed Alder Subtransmission Source Line Route and Proposed Telecommunication Facilities within the City, as well as Proposed modifications to the Alder Substation, would not be subject to standards established by the City.

The City of Rancho Cucamonga's Municipal Code exempts construction activities from noise standards if construction occurs between 6:30 a.m. and 8:00 p.m., Monday through Saturday. SCE would limit construction activities within the City of Rancho Cucamonga to these times of day. If work is required outside the allowed hours, SCE would obtain a noise variance from the City. Therefore, noise from construction activities within the City of Rancho Cucamonga, including construction of the portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities within the City as well as Proposed modifications to the Etiwanda Substation, would not be subject to standards established by the City.

The County of San Bernardino's Code of Ordinances exempts construction activities from noise standards if they occur between 7:00 a.m. and 7:00 p.m. SCE would limit construction activities within unincorporated San Bernardino County to these times of day. If work is required outside the allowed hours, SCE would obtain a noise variance from the County. Therefore, noise from construction activities within unincorporated San Bernardino County, including construction of the portion of the Proposed Etiwanda Subtransmission Source Line Route and Proposed Telecommunication Facilities within the unincorporated portion of the County, would not be subject to standards established by the County.

Noise associated with construction activities for the Proposed Project would occur in accordance with restrictions and standards established by the municipal codes of the Cities of Fontana, Rialto and Rancho Cucamonga and the County of San Bernardino Code of Ordinances, therefore the impact would be less than significant.

Would the project cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction activities, such as tamping ground surfaces, drilling, and passing heavy trucks on uneven surfaces, may produce minor groundborne vibration and noise in the immediate vicinity of the construction activity. Impacts from construction-related groundborne vibration and noise, should they occur, would be intermittent and confined to the immediate area surrounding the activity. According to the FTA, large bulldozers can create vibration levels of 0.089 in/sec PPV and 87 VdB referenced to 1 microinch per second and based on the root mean square velocity amplitude at 25 feet, as shown in Table 4.12-3, Typical Construction Equipment Vibration Levels.

Table 4.12-3 Typical Construction Equipment Vibration Levels

Equipment	PPV at 25 feet (in/sec)	Approximate LV at 25 feet
Haul Trucks	0.076	86
Large Bulldozer	0.089	87

Notes:
in/sec = inches per second; LV = velocity level in decibels (VdB) referenced to 1 microinch/second and based on the root mean square velocity amplitude; PPV = peak particle velocity
Source: FTA, 2006

Installation of underground (below-grade) facilities would be anticipated to generate the highest vibration levels. Below-grade activities during construction of the Proposed Substation and the Distribution Getaways would require the use of an excavator/backhoe to dig and backfill trenches for installing a ground grid, cables, foundations, footings, and duct banks, as well as a cement mixer for preparing concrete for cable trenches, foundations, footings, and equipment vaults, in addition to trucks for hauling equipment and construction materials. Other activities such as grading and aboveground facility construction would also generate vibrations; however, these vibrations levels would be less intense and would occur for a shorter duration.

The nearest sensitive receptors to construction activities at the Proposed Substation site would be residences located approximately 500 feet to the north, on the north side of West Casa De Grande Drive. Using FTA's recommended procedure for applying propagation adjustments, which accounts for the decrease in vibration levels with an increase in distance from the source to receptor, to the reference levels in Table 4.12-3, Typical Construction Equipment Vibration Levels, predicted worst-case vibration levels of approximately 0.001 in/sec PPV and 48 VdB at the nearest sensitive receptor could occur from excavation and related below-grade activities. These vibration levels would not exceed Caltrans' recommended standards with respect to the prevention of structural building damage (0.2 in/sec PPV for normal buildings) or exceed FTA's maximum-acceptable-vibration standard with respect to human response (80 VdB for residences and buildings where people normally sleep) at nearby existing vibration-sensitive land uses (Caltrans, 2004; FTA, 2006).

The use of equipment, such as an auger/drill or backhoe, during construction of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities has the potential to generate groundborne vibrations. The nearest sensitive receptors that may be subjected to groundborne vibration or groundborne noise levels from construction of the Proposed Subtransmission Line Source Routes and Proposed Telecommunication Facilities would be residences located along the Proposed Subtransmission Source Line Routes. Residences are situated as close as 80 feet from potential pole installation locations. Using FTA's recommended procedure for applying propagation adjustments to the reference levels in Table 4.12-3, Typical Construction Equipment Vibration Levels, predicted worst-case vibration levels of approximately 0.016 in/sec PPV and 72 VdB at the nearest sensitive receptor could occur from drilling. These vibration levels would not exceed Caltrans' recommended standards or the FTA's

maximum-acceptable-vibration standard with respect to human response (Caltrans, 2004; FTA, 2006).

Therefore, construction of the Proposed Project would result in a less than significant impact related to the generation of groundborne vibration and groundborne noise levels.

Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction of the Proposed Project would require a variety of equipment. Typical maximum noise levels for construction equipment at 50 feet from the source are shown in Table 4.12-4, Typical Noise Levels Generated by Construction Equipment.

Table 4.12-4 Typical Noise Levels Generated by Construction Equipment

Equipment	Noise Level (dBA) at 50 feet
Backhoe	80
Concrete mixer	85
Pump truck	82
Crane, Mobile	83
Dozer	85
Excavator	85
Generator	81
Grader	85
Man lift	85
Loader	85
Paver	89
Roller	85
Scraper	89
Trucks	74-88

Source: FTA, 2006

As shown in Table 4.12-4, Typical Noise Levels Generated by Construction Equipment, the maximum intermittent noise levels are expected to range between 74 and 89 dBA at approximately 50 feet. Based on FTA construction noise modeling procedures (FTA, 2006), the highest combined predicted hourly noise level for construction equipment associated with the Proposed Project at 50 feet would be 84 dBA L_{eq} during construction of the Proposed Substation and 78 dBA L_{eq} during the installation of wood poles, Light Weight Steel poles and Tubular Steel Poles and grading of access roadways (see Appendix F, Noise Analysis Data). The removal of poles and other activities would be less intensive and would generate lower noise levels than the previously identified activities. Noise levels would be further attenuated due to distance of the receptors and may receive additional attenuation from structures and/or vegetation. As an example,

blocking the line of sight with a structure or barrier between a source and receiver can provide 5 dBA attenuation, while vegetation can yield up to 7.5 dBA attenuation per doubling of distance as opposed to 6 dBA per doubling of distance over hard surfaces, such as roadways and parking lots.

Noise impacts associated with construction would primarily affect those persons located closest to the Proposed Substation site, Proposed Subtransmission Source Line Routes, the existing Alder and Etiwanda Substations, and the staging areas. Existing residences near the Proposed Project components would experience a temporary increase in noise levels above those existing without the Proposed Project. However, the 500 feet distance from the nearest residence to the Proposed Substation site would attenuate noise by approximately 20 dBA to an average hourly noise level of 64 dBA L_{eq} and a maximum noise level of 69 dBA L_{max}.

Installation of new poles along the Proposed Subtransmission Source Line Routes may occur as close as 80 feet from residences, and noise levels would attenuate to approximately 75 dBA L_{eq} or less, and maximum noise levels would reach up to 82 dBA L_{max}. Noise levels associated with pole installation would be short in duration, as it typically takes one to three days to erect poles depending on the type. Due to the distances to local schools (e.g. the KinderCare Learning Center and Heritage Intermediate School), and churches (e.g. the Water of Life Church), these land uses would not be significantly impacted during installation or removal of poles.

While construction noise would be noticeable, the noise levels identified in this analysis are typically considered acceptable for construction activities during daytime hours. In addition, noise associated with construction would be exempt from noise regulations of the Cities of Rialto and Rancho Cucamonga and the County of San Bernardino and would occur in accordance with restrictions on construction hours and standards established by the respective municipal codes. Therefore, a less than significant impact would occur.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criteria:

Would the project cause 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?

Operation of the Proposed Project would consist of routine maintenance activities and occasional emergency repairs. These activities would not occur on a continuous basis and would likely not involve the creation of substantial noise.

Due to the distance to sensitive receptors (approximately 500 feet), noise associated with operation of the Proposed Substation would be negligible. Additionally, noise caused by operation of the Proposed Subtransmission Source Line Routes directly below the conductors would be inaudible. See the analysis provided below for a discussion of potential impacts relating to an increase in ambient noise levels. Operation of the

Proposed Distribution Getaways and the Proposed Telecommunication Facilities would not generate noise. Therefore, all activities associated with operation of the Proposed Project would comply with noise standards and regulations established by the Cities of Fontana, Rialto and Rancho Cucamonga and the County of San Bernardino. Impacts would be less than significant.

Would the project cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Operation of the Proposed Project would consist of routine maintenance activities and emergency repairs. These activities would be unlikely to produce groundborne vibration and noise. Operation of transformers at the Proposed Substation could produce groundborne vibration; however, groundborne vibrations and noise would be perceptible only in the immediate vicinity (i.e., less than 25 feet) of the transformer pad, if at all. No other component of the Proposed Project would generate vibrations and noise during operation. Therefore, impacts resulting from the generation of excessive groundborne vibration and noise during operation of the Proposed Project would be less than significant.

Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The permanent noise sources that would occur with the Proposed Project are limited to the Proposed Subtransmission Source Lines and transformer operation at the Proposed Substation. Operation of the Proposed Distribution Getaways and the Proposed Telecommunication Facilities would not generate noise.

Subtransmission Source Line Noise

When a transmission or subtransmission line is in operation, an electric field is generated in the air surrounding the conductors forming a "corona." Corona results from the partial breakdown of the electrical insulating properties of the air surrounding the conductors. When the intensity of the electric field at the surface of the conductor exceeds the insulating strength of the surrounding air, a corona discharge occurs at the conductor surface, representing a small dissipation of heat and energy. Some of the energy may dissipate in the form of small local pressure changes that result in audible noise or in radio or television interference. Audible noise generated by corona discharge is characterized as a hissing or crackling sound that may be accompanied by a 120 hertz hum.

Slight irregularities or water droplets on the conductor and/or insulator surface accentuate the electric field strength near the conductor surface, thereby making corona discharge and the associated audible noise more likely. Therefore, audible noise from transmission lines is generally a foul weather (wet conductor) phenomenon. However, during fair weather, insects and dust on the conductors can also serve as sources of corona discharge.

The Electric Power Research Institute (EPRI) has conducted several studies of corona effects (EPRI, 1978 and 1987). The typical noise levels for transmission lines with wet conductors are shown in Table 4.12-5, Transmission Line Voltage and Audible Noise Level.

Table 4.12-5 Transmission Line Voltage and Audible Noise Level

Line Voltage (kV)	Audible Noise Level Directly Below the Conductor (dBA)
138	33.5
240	40.4
356	51.0

kV = kilovolt; dBA A-weighted decibels

As the Proposed Subtransmission Source Lines would be 66 kV, operation of the lines can be predicted to generate less than 33.5 dBA based on the noise levels in Table 4.12-5, Transmission Line Voltage and Audible Noise Level. A noise level of this magnitude would generally be indistinguishable from background noise in the existing environment. Therefore, operation of the Proposed Subtransmission Source Lines would have a negligible effect on existing noise in the area. The impact would be less than significant.

Substation Noise

Substations typically generate steady noise from operation of transformers, along with cooling fans and oil pumps needed to cool the transformers during periods of high electrical demand. With all auxiliary cooling fans operating, the worst-case noise level from the transformers at full load is predicted to be no more than 66 dBA at 3 feet distance from the equipment.[2]

Based on the Project Description in Chapter 3 and Figure 3.1, Proposed Project Substation Layout, the transformer banks would be located near the center of the substation footprint, with the nearest being 110 feet from the northern boundary of the Proposed Substation, which would be surrounded by an 8-foot high block wall, and 190 feet from the nearest property line. At this distance, noise levels generated by the transformers would be 33 dBA L_{eq} or less at the property line. This noise level is significantly less than the lowest measured nighttime noise level of 43 dBA Leq at this location (see Table 4.12-2, Summary of 25-Hour Monitored Ambient Noise Levels). As a result, the Proposed Project would not cause a substantial permanent increase in ambient noise levels in the vicinity of the Proposed Project above levels existing without the Proposed Project. Impacts would be less than significant.

[2] Transformers commonly procured for 66/12 kV substations typically would not exceed the 66 dBA noise level at 3 feet distance from the equipment.

Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Operation of the Proposed Project would consist of routine, short-term inspection and maintenance of the facilities. Although the Proposed Substation would be unattended and remotely monitored, routine maintenance activities would occur three to four times per month and would consist of testing, monitoring, and repairing equipment. Maintenance of the Proposed Substransmission Source Line Routes would occur on an as-needed basis, and activities would include repairing conductors, replacing insulators, replacing poles, and maintaining the access roads. Because operations would involve limited amounts of activities, the Proposed Project would not contribute to a substantial temporary increase in ambient noise in the area. Impacts would be less than significant.

4.12.5 Alternative Substation Site

The Alternative Substation site would be located at a slightly greater distance to sensitive receptors than the Proposed Substation site. Specifically, the Alternative Substation site would be located at the southeast corner of Sierra Avenue and West Casa Grande Drive. Therefore, construction and operation activities at the Alternative Substation site would be located at greater distances than the Proposed Substation site, which would increase attenuation. However, overall noise impacts would not substantially change with construction and operation of the Alternative Substation site as compared to the Proposed Substation site because construction and operation activities would be similar. The noise impacts would be less than significant.

4.12.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes would pass through additional populated areas as compared to the Proposed Subtransmission Source Line Routes. Most of the Alternative Alder Subtransmission Source Line Route B would not be located near residential areas. However, the portion of the Alternative Alder Subtransmission Source Line Route B located along West Casa Grande Drive would pass within 80 feet of residences north of West Casa Grande Drive. At this distance, noise impacts would be similar to impacts for the Proposed Subtransmission Source Line Routes, as construction and operation activities for portions of the Proposed Etiwanda Subtransmission Source Line Route would occur at a similar distance from other residences. Although impacts under this alternative would be less than significant, the proximity of the Alternative Subtransmission Source Line Routes to additional residences would cause a greater impact from noise compared to the Proposed Subtransmission Source Line Routes. However, noise impacts overall would not substantially increase with construction and operation of the Alternative Subtransmission Source Line Routes as compared to the Proposed Project because construction and operation activities would be similar. The impact would be less than significant.

4.12.7 References

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4.13 Population and Housing

This section describes population and housing in the area of the Proposed Project. The potential impacts of the Proposed Project and alternatives are also discussed.

4.13.1 Environmental Setting

The Proposed Project is located in the cities of Fontana, Rialto, and Rancho Cucamonga, as well as in unincorporated San Bernardino County. The historic and future population growth data for these cities and the unincorporated portions of the County are presented in Table 4.13-1, Historic and Estimated Population. The population in unincorporated areas of the County decreased approximately 9 percent between 1990 and 2000 and is estimated to increase approximately 58 percent between 2000 and 2030. The decrease in population between 1990 and 2000 can be attributed to the incorporation of areas that were previously unincorporated. The cities of Rialto and Rancho Cucamonga grew by approximately 27 percent and 26 percent, respectively, between 1990 and 2000 and are expected to grow by 49 percent and 35 percent, respectively, between 2000 and 2030. The City of Fontana almost doubled between 1990 and 2000, with an approximately 47 percent population increase, and it is estimated to continue growing, with an expected population increase of approximately 66 percent between 2000 and 2030.

Table 4.13-1 Historic and Estimated Population

Year	City of Fontana	City of Rialto	City of Rancho Cucamonga	Unincorporated San Bernardino County[4]
1990	87,535[1]	72,388[1]	101,409[1]	322,557[3]
2000	128,929[1]	91,873[1]	127,743[1]	292,857[3]
2005	162,935[2]	99,334[2]	166,348[2]	305,837[2]
2010	174,719[2]	107,849[2]	171,980[2]	346,523[2]
2015	185,804[2]	115,846[2]	172,405[2]	380,393[2]
2020	195,866[2]	123,080[2]	172,409[2]	408,654[2]
2025	205,630[2]	130,100[2]	172,414[2]	436,081[2]
2030	215,018[2]	136,845[2]	172,417[2]	462,447[2]

Sources:

1 U.S. Census Bureau 2000, 1990.

2 SCAG, 2008;

3 CDF, 2007a;

Note:

4 The decrease in population of unincorporated San Bernardino County between 1990 and 2000 can be attributed to the incorporation of areas that were previously unincorporated.

The historic and future data for number of households for the cities of Fontana, Rialto, Rancho Cucamonga and unincorporated San Bernardino County are presented in Table 4.13-2, Historic and Estimated Households. The number of households in unincorporated areas of the County decreased approximately 14 percent between 1990 and 2000 and is estimated to increase approximately 21 percent between 2000 and 2030. The number of households in the cities of Rialto and Rancho Cucamonga grew by approximately 13 percent and 21 percent, respectively, between 1990 and 2000 and are expected to grow by 53 percent and 34 percent, respectively, between 2000 and 2030. The City of Fontana experienced the largest amount of growth in number of households with an approximately 29 percent increase between 1990 and 2000, and it is estimated to continue growing, with an expected increase in number of households of approximately 63 percent between 2000 and 2030.

Table 4.13-2 Historic and Estimated Households

Year	City of Fontana	City of Rialto	City of Rancho Cucamonga	Unincorporated San Bernardino County[1]
1990	26,385	21,893	33,635	147,989
2000	34,014	24,659	40,863	126,863
2005	40,636	25,202	50,603	92,669
2010	44,022	27,518	52,027	104,067
2015	47,992	30,552	53,396	118,933
2020	50,636	33,030	53,877	131,080
2025	53,176	35,412	54,339	142,748
2030	55,547	37,639	54,776	153,669

Source: SCAG, 2008; CDF, 2007b; U.S. Census Bureau 2000, 1990

[1] The decrease in households of unincorporated San Bernardino County between 1990 to 2000 can be attributed to the incorporation of areas that were previously unincorporated.

Several specific plans within the Proposed Project area include development of residential units. The Summit at Rosena Specific Plan, located west of the Proposed Substation site, has been approved for 856 residential units. The Arboretum Specific Plan, located northwest of the Proposed Substation Site, has been approved for 3,526 residential units. The Proposed Etiwanda Subtransmission Source Line Route would cross diagonally through the approved Citrus Heights North Specific Plan (1,051 residential units), the approved Summit Heights Specific Plan (1,161 residential units), and the approved Westgate Specific Plan (2,031 residential units), respectively (City of Fontana, 2010).

4.13.2 Regulatory Setting

There are no population or housing laws, rules, or regulations that apply directly to the Proposed Project.

4.13.3 Significance Criteria

The significance criteria for assessing the impacts to population and housing come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

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

4.13.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Housing does not exist on the Proposed Substation site, within the Proposed Subtransmission Source Line Routes, or within the locations of the Proposed Telecommunication Facilities and the Proposed Distribution Getaways. Although residences are located near portions of the Proposed Etiwanda Subtransmission Source Line Route, existing housing would not be displaced by construction or operation of the Proposed Project. The Proposed Project would not displace existing housing, or necessitate the relocation or construction of replacement housing elsewhere, therefore there would be no impact.

Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

As discussed above, there are no existing residential uses on the Proposed Substation site, within the Proposed Subtransmission Source Line Routes, or within the locations of the Proposed Telecommunication Facilities and the Proposed Distribution Getaways. Therefore, neither construction nor operation of the Proposed Project would displace people or necessitate the construction of replacement housing elsewhere. No impact related to displacing substantial numbers of people would occur.

Operation of the Proposed Project would not result in impacts for the following CEQA criterion:

Would the project induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of new roads or other infrastructure)?

The Proposed Project would not include any new homes, so there would be no direct impact on population growth in the area. The Proposed Substation would be unattended and remotely operated, requiring only occasional visits for routine maintenance and emergency repair.

Normal operation of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities would be controlled remotely through SCE control systems. SCE maintains an inspection frequency of the energized subtransmission overhead facilities a minimum of once per year via ground and/or aerial observation. The frequency of inspection and maintenance activities would depend upon weather effects and any unique problems that may arise due to such variables as substantial storm damage or vandalism.

The Proposed Project is required to ensure the availability of safe and reliable electric service to meet customer electrical demand in the Electrical Needs Area. Existing facilities would not meet forecasted, long-term electrical demand within the Electrical Needs Area. The Proposed Project would not induce growth, but instead is designed to respond to existing growth and demand trends (see Section 6.2, Growth Inducing Impacts, for more information).

Operation of the Proposed Project would not create new opportunities for local industry or commerce or impact population growth in the area beyond what is already planned by San Bernardino County and the cities of Fontana, Rialto, and Rancho Cucamonga.

Portions of the Proposed Subtransmission Source Line Routes would require approximately 7 miles of new access roads in order to accommodate construction and maintenance activities, with many of the access roads extending from existing SCE access roads. After construction, the access roads would only be used for occasional maintenance operations and would not provide new roadside development or access opportunities for local industry or commerce in the area. Therefore, the new access roads would not directly or indirectly induce population growth. As operation of the Proposed Project would not induce population growth, there would be no impact.

Construction Impacts

Construction of the Proposed Project would result in less than significant impacts for the following CEQA criterion:

Would the project induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of new roads or other infrastructure)?

Construction activities are anticipated to occur for approximately 12 months; the estimated deployment and number of crew members would be dependent on local jurisdiction permitting, material availability, and construction scheduling. The average requirement during the 12-month construction duration would be about 30 craft workers per day. During peak times, SCE may require up to 160 craft workers per day. The increased demand for workers for construction of the Proposed Project would be temporary, and, therefore, would not induce substantial population growth in the area. The Proposed Project may require temporary accommodations for construction workers during construction. However, this need is anticipated to be met by hotels and motels in the vicinity of the Proposed Project, as there are a number of hotels and motels available in the cities of Fontana, Rialto, and Rancho Cucamonga. Therefore, no new housing would need to be built for temporary construction workers. As previously mentioned, approximately 7 miles of new access roads would be constructed in order to accommodate construction and maintenance activities. During construction these access roads would not provide new roadside development or access opportunities for local industry or commerce in the area. Potential impacts related to population growth (directly or indirectly) in the area during construction would be less than significant.

4.13.5 Alternative Substation Site

The Alternative Substation site has a similar setting as the Proposed Substation site and is similar in scope. As a result, impacts to population and housing would be the same as those of the Proposed Substation site and would be less than significant.

4.13.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes have a similar setting as the Proposed Subtransmission Source Line Routes and are similar in scope. As a result, impacts to population and housing would be the same as those of the Proposed Subtransmission Source Line Routes and would be less than significant.

4.13.7 References

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4.14 Public Services

This section describes public services in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

4.14.1 Environmental Setting

Fire Protection Services

Fire protection throughout the areas surrounding the Proposed Project is provided by the San Bernardino County Fire Department (SBCFD), as well as the local jurisdictional fire departments of the cities of Fontana, Rialto, and Rancho Cucamonga. SBCFD currently operates 70 fire stations and services the unincorporated areas of San Bernardino County and five of the 24 cities within the County.

The City of Fontana Fire Department (FFD) services the Fontana Fire Protection District, which includes Fontana's corporate limits and the County areas within the City's sphere of influence. The Proposed Substation site, the Proposed Distribution Getaways, the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities located within the Proposed Etiwanda Subtransmission Source Line Route would be served by the FFD, except for the portion within the City of Rancho Cucamonga. The FFD currently operates seven fire stations that service Fontana, as well as portions of unincorporated San Bernardino County. The FFD provides fire prevention, emergency services, and hazardous material response. The FFD offers contracted emergency and administrative services through the SBCFD (City of Fontana, 2010a).

The City of Rialto Fire Department (RFD) services the City of Rialto with fire prevention activities, hazardous materials and technical rescue response capabilities, and disaster preparedness programs. The Proposed Alder Subtransmission Source Line Route and the Proposed Telecommunication Facilities located within the Proposed Alder Subtransmission Source Line Route, except for the portion within the City of Fontana, would be served by the RFD. The RFD currently operates four fire stations and is in the process of replacing Station #202 with a new fire station. Construction on the new fire station is planned for 2010 (City of Rialto, 2010a).

The City of Rancho Cucamonga Fire Department (RCFD) services the City of Rancho Cucamonga with fire protection and emergency medical services, as well as other diverse emergency preparedness and response programs. The portion of the Proposed Etiwanda Subtransmission Source Line Route and the Proposed Telecommunication Facilities within the City of Rancho Cucamonga would be served by the RCFD, which operates six fire stations (City of Rancho Cucamonga, 2010a).

Fire stations are shown in Figure 4.14-1, Fire and Police Stations in the Vicinity of the Proposed Project. The closest fire station to the Proposed Substation site is RFD's Station 204, located at 3288 N. Alder Avenue, approximately 0.75 mile northeast of the Proposed Substation site.

Police Protection Services

The San Bernardino County Sheriff's Department (SBCSD) is the primary law enforcement agency for San Bernardino County and provides both community policing and the operation and maintenance of correctional facilities. The SBCSD has 3,700 total employees. Ten sheriff substations are located throughout the County to provide area-level community service, including one in the City of Fontana and one in unincorporated San Bernardino County. The SBCSD also contracts with 14 of the 24 incorporated cities within the County for law enforcement services, including Rancho Cucamonga. SBCSD provides full-service law enforcement, traffic services, investigations, and safety services (San Bernardino County, 2010a).

The City of Fontana Police Department (FPD) is located at 17005 Upland Avenue and provides the primary police protection services for the City of Fontana (City of Fontana, 2010b). The FPD consists of eight field services units: air support, field evidence, hostage negotiations, investigations, K-9, patrol, special enforcement detail and traffic.

The City of Rialto Police Department (RPD) is located at 128 N. Willow Avenue (City of Rialto, 2010b). The RPD provides the primary police protection services for the City of Rialto, including traffic control, criminal investigations, and narcotics surveillance.

The City of Rancho Cucamonga Police Department (RCPD) is located at 10510 Civic Center Drive (City of Rancho Cucamonga, 2010b). The RCPD provides the primary police protection services for the City of Rancho Cucamonga and consists of a patrol division, traffic division, and multiple enforcement teams.

Police stations are shown in Figure 4.14-1, Fire and Police Stations in the Vicinity of the Proposed Project.

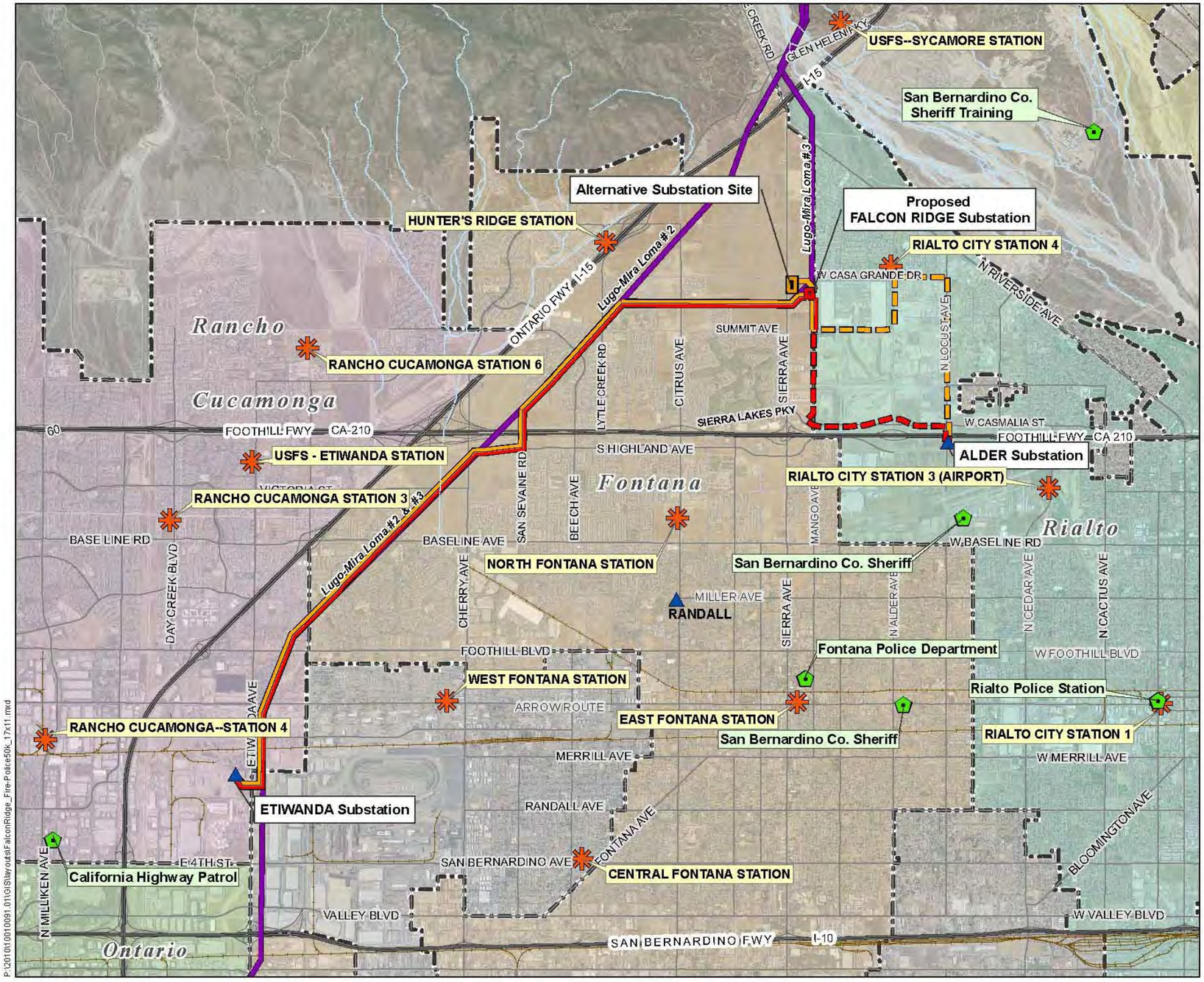
School Services

San Bernardino County has 33 school districts and five community college districts (San Bernardino County, 2010b). The Proposed Substation site is located within the Rialto School District, while the Proposed Subtransmission Source Line Routes traverse the Etiwanda School District, the Fontana School District, and the Rialto School District.

There are nine schools located within one-half mile of the Proposed Project (Fontana Unified School District, 2010). These schools are shown and labeled on Figure 4.14-2, Schools in the Vicinity of the Proposed Project, and listed below:

- Heritage Intermediate School, located at 13766 South Heritage Circle, Fontana, approximately 0.02 mile southeast of the Proposed Etiwanda Subtransmission Source Line Route

- Kucera Middle School, located at 2140 West Buena Vista Drive, Rialto, approximately 0.23 mile north of the Alternative Alder Subtransmission Source Line Route



Falcon Ridge Substation Project

Figure 4.14-1

Fire and Police Stations in the Vicinity of Proposed Project

Fire Station

Source: San Bernardino Co -- Information Services Dept -- GIMS Team 2010

Police Station

Source: AECOM from Google Maps 2010

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

Proposed

Alternative

Common to Both

Existing Features

Substation

500 kV Transmission Line

Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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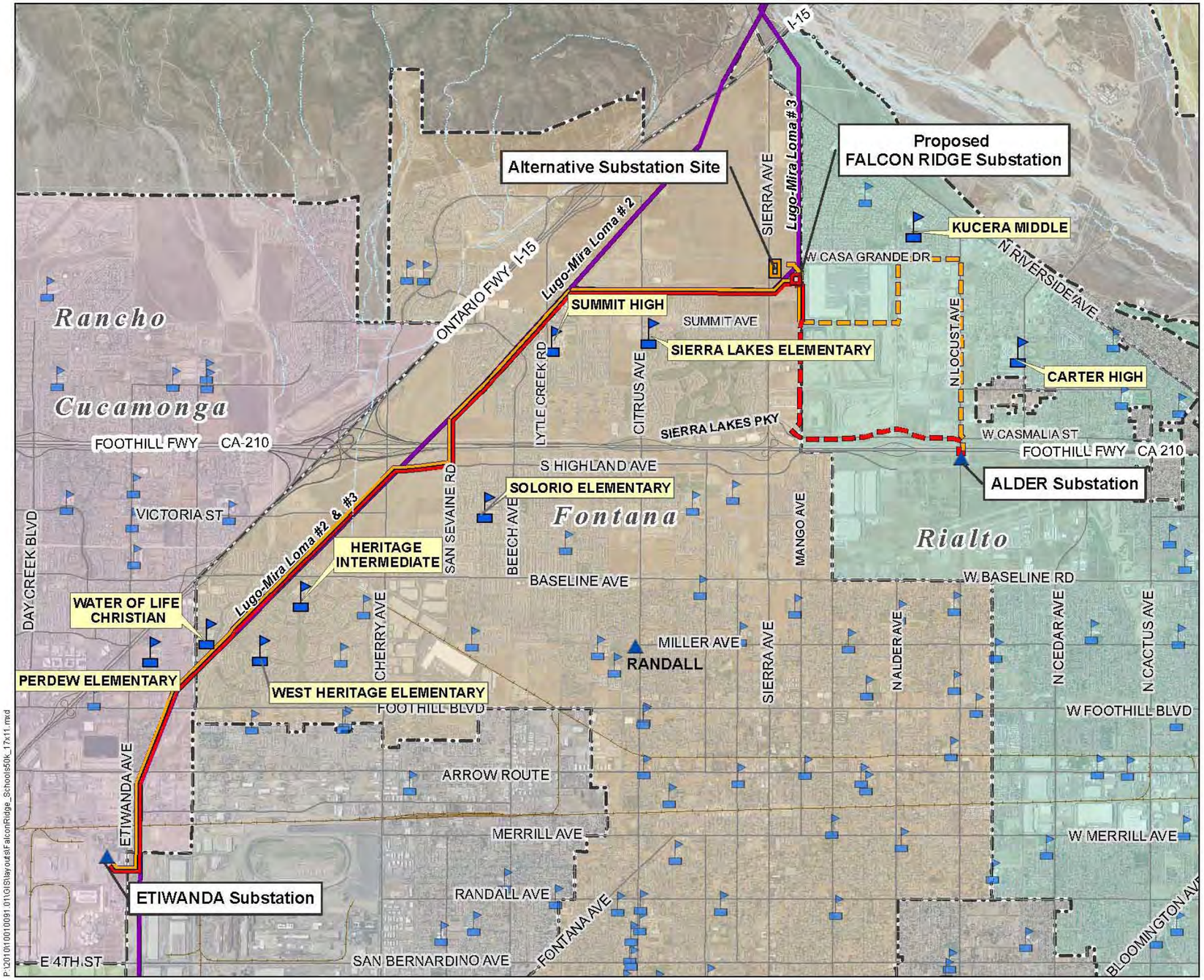

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Falcon Ridge Substation Project

Figure 4.14-2
Schools in the Vicinity of Proposed Project

Schools

- Within 0.5 miles of Project [Labeled]
- Beyond 0.5 miles of Project

Source: San Bernardino Co -- Information Services Dept -- GIMS Team 2010

Project Components

Substation Site
- Proposed
- Alternative

Source Line Route and Telecommunication Facilities
- Proposed
- Alternative
- Common to Both

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

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- Perdew Elementary School, located at 13051 Miller Avenue, Etiwanda, approximately 0.25 mile northwest of the Proposed Etiwanda Subtransmission Source Line Route

- Sierra Lakes Elementary School, located at 5740 Avenal Place, Fontana, approximately 0.25 mile south of the Proposed Etiwanda Subtransmission Source Line Route

- Solorio Elementary School, located at 15172 Walnut Street, Fontana, approximately 0.35 mile east of the Proposed Etiwanda Subtransmission Source Line Route

- Summit High School, located at 15551 Summit Avenue, Fontana, approximately 0.35 mile east of the Proposed Etiwanda Subtransmission Source Line Route

- Water of Life Christian School, located at 7625 East Avenue, Fontana, approximately 0.15 mile west of the Proposed Etiwanda Subtransmission Source Line Route

- West Heritage Elementary School, located at 13690 West Constitution Way, Fontana, approximately 0.22 mile southeast of the Proposed Etiwanda Subtransmission Source Line Route

- Wilmer Amina Carter High School (Carter High School), located at 2630 North Linden Avenue, Rialto, approximately 0.25 mile east of the Alternative Alder Subtransmission Source Line Route.

Several of the specific plans proposed within the Proposed Project area include schools. The Arboretum Specific Plan, northwest of the Proposed Substation site, will include two school district sites. The Proposed Etiwanda Subtransmission Source Line Route would cross diagonally through the approved Westgate Specific Plan, which will include approximately 10 acres for an elementary school site, and the West End Specific Plan, which will include approximately 22.1 acres for schools (City of Fontana, 2010c).

Hospitals

San Bernardino County operates the Arrowhead Regional Medical Center, located at 400 North Pepper Avenue in the City of Colton, approximately 7 miles southeast of the Proposed Substation site. Arrowhead Regional Medical Center provides emergency, trauma, family health, and burn services (Arrowhead Regional Medical Center, 2010). The County also has seven public health clinics and additional medical facilities and services, such as private/for-profit services and municipal facilities. The closest hospital facility to the Proposed Substation site is Kaiser Permanente Hospital, located in the City of Fontana at 9961 Sierra Avenue, approximately 5.7 miles south of the Proposed Substation site (Kaiser Permanente, 2010). Additionally, the Community Hospital of San Bernardino, located at 1805 Medical Center Drive in San Bernardino, is approximately 6.5 miles southeast of the Proposed Substation site. This hospital provides emergency, maternity, family health, and trauma services (Community Hospital of San Bernardino,

2010). These hospitals are shown on Figure 4.14-3, Hospitals in the Vicinity of the Proposed Project.

Library Services

San Bernardino County operates a system of 33 libraries and a bookmobile. Carter Branch Library is located at 2630 N. Linden Avenue in Rialto, approximately 2 miles southeast of the Proposed Substation site (San Bernardino County, 2010c). Another County branch regional library, the Lewis Library and Technology Center, is located within the City of Fontana at 8437 Sierra Avenue, approximately 3.7 miles south of the Proposed Substation site (Fontana Library, 2010).

The City of Rancho Cucamonga currently operates two libraries. The closest to the Proposed Substation site is the Paul A. Biane Library, located at 12505 Cultural Center Drive, approximately 6.5 miles southwest of the Proposed Substation site (City of Rancho Cucamonga, 2010c).

4.14.2 Regulatory Setting

County of San Bernardino

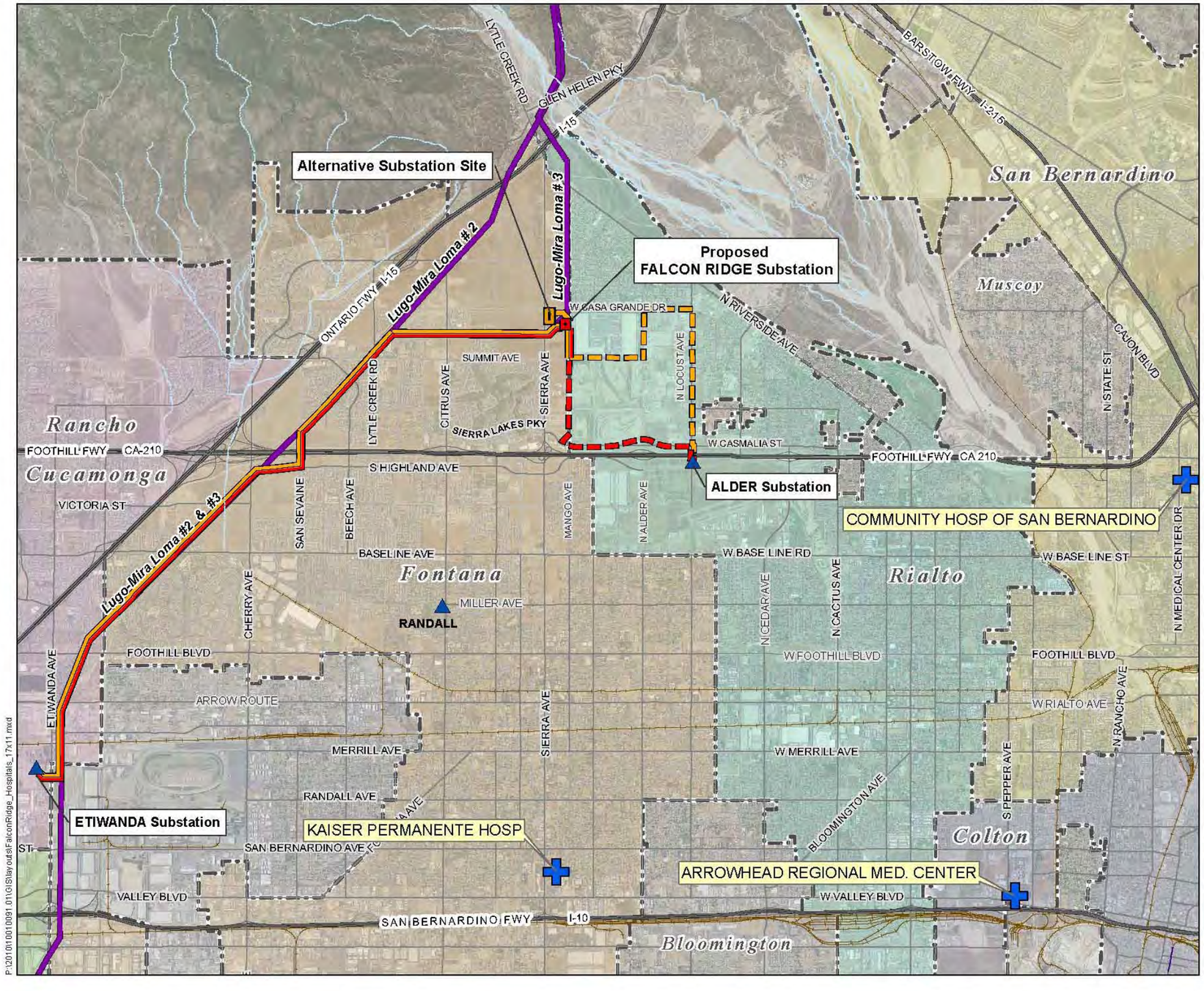
Fire protection policies and regulations governing San Bernardino County include County Ordinances No. 870 and 4022, California Public Resources Code Section 4290, the Uniform Fire Code, and the Uniform Building Code. The County of San Bernardino has adopted the California Building Code and the International Building Code with respect to overall and/or specific building code issues.

City of Fontana

Chapter 11, Fire Prevention, of the City of Fontana Code of Ordinances imposes the payment of fees for capital improvements necessary to provide fire protection services. The Ordinance also requires that automatic fire sprinkler systems be installed and maintained in all new construction. However, the Fire Chief and the building official have the authority to omit sprinklers where they are considered undesirable because of the nature of the contents of a building or structure, but an alternative fire extinguishing system, determined by the Fire Chief, may be required.

City of Rialto

Chapter 15.28, Fire Code, of the City of Rialto Code of Ordinances establishes that reasonable fees may be collected by the Fire Chief for fire protection planning and fire prevention services. The City's Fire Code also requires vegetation trimming or clearance around structures, as necessary, to maintain public safety and reduce nuisance, including around electrical transmission and distribution lines (Section 304.4).



Falcon Ridge Substation Project

Figure 4.14-3
Hospitals in the Vicinity of the Proposed Project

Hospitals

Source: San Bernardino Co -- Information Services Dept -- GIMS Team 2010

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- Proposed
- Alternative
- Common to Both

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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City of Rancho Cucamonga

Ordinance 46 of the City of Rancho Cucamonga Fire Protection District adopted the 2007 California Fire Code by reference, with modifications, to provide for the issuance of permits and collection of fees as well as to safeguard life and property from fire, explosion, hazardous materials, etc.

Southern California Edison Protocols

SCE has standard protocols that are followed when the National Weather Service issues a Red Flag Warning. SCE participates in the Red Flag Fire Prevention Program with the California Department of Forestry and Fire Protection, the California Office of Emergency Services, the U.S. Forest Service, and various city and County fire agencies. SCE complies with California Public Resources Code Sections 4292 and 4293 related to vegetation management in transmission line corridors.

4.14.3 Significance Criteria

The significance criteria for assessing the impacts to public services come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, result in the 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 including: fire protection, police protection, schools, parks, or other public facilities.

4.14.4 Impact Analysis

Construction Impacts

Construction of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or with the 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: fire protection, police protection, schools, parks, or other public facilities?

Short-term construction activities would not require the expansion of fire protection services in the cities of Fontana, Rialto or Rancho Cucamonga or in unincorporated San Bernardino County. SCE would clear vegetation from the work areas prior to staging construction equipment, minimizing the probability of a fire. Construction activities would be performed by either SCE construction crews based out of one of the SCE local

facilities, or by local contractors managed by SCE construction management personnel. In general, workers are expected to be drawn from the local labor pool; therefore, the number of construction workers expected to work in the area is not expected to substantially increase the demand for fire protection services, nor would it alter emergency service response times or service ratios in the area. Due to the temporary nature of the construction period (approximately 12 months), construction work is not anticipated to result in the need for new or physically altered fire protection emergency services. The potential for interference with emergency service providers is further discussed in Section 4.8, Hazards and Hazardous Materials.

Construction of the Proposed Project is unlikely to require the use of local law enforcement agencies. If necessary, SCE would hire a local security company to provide 24-hour attendance at the material staging yards during construction, therefore minimizing the involvement of local law enforcement. Once the Proposed Substation site is graded, a temporary chain link fence would be installed around the substation perimeter for added security. Temporary construction trailers for supervisory and clerical personnel would also be situated at the Proposed Substation site. Therefore, construction work is not anticipated to result in the need for new or physically altered police protection emergency services.

The Proposed Project would not result in an increase in residential population that would affect the demand for schools. Construction would be temporary and performed by either SCE construction crews based out of one of the SCE local facilities or local contractors managed by SCE construction management personnel who are not expected to bring a substantial number of spouses and/or any school-age children to the area. Therefore, the Proposed Project is not expected to significantly impact school enrollment or impact the performance objectives of any local public schools.

There would be a less than significant impact on government facilities such as fire protection, police protection, schools, libraries, hospitals, or other public facilities. Construction-related impacts to recreation facilities in the Proposed Project Area are evaluated in Section 4.15, Recreation.

Operation Impacts

Operation of the Proposed Project has the potential to result in impacts for the following CEQA criterion:

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or with the 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: fire protection, police protection, schools, parks, or other public facilities?

The Proposed Substation site and portions of the Proposed Subtransmission Source Line Routes closest to the Proposed Substation site are classified as very high fire hazard areas. However, the majority of the Proposed Subtransmission Source Line Routes are

classified as either moderate to high fire hazard, non-wildland/non-urban, or urban unzoned (California Department of Forestry and Fire Protection, 2007). Figure 4.8, Fire Hazard Severity Zones, presents the five hazard classes found in the vicinity of the Proposed Project.

The Proposed Project would be unattended, and electrical equipment within the Proposed Substation would be remotely monitored and controlled by an automated system from SCE's Vista Switching Center. SCE personnel would visit for electrical switching and requiring only occasional visits for routine maintenance purposes. Routine maintenance would include equipment testing, monitoring, and repair. Therefore, operation of the Proposed Project would not significantly affect police and fire protection response times or create higher demand for these public services.

The Proposed Project is required to ensure the availability of safe and reliable electric service to meet customer electrical demand in the Electrical Needs Area. Existing facilities would not meet forecasted, long-term electrical demand within the Electrical Needs Area. The Proposed Project would not induce growth, but instead is designed to respond to existing growth and demand trends (refer to Section 6.2, Growth Inducing Impacts, for additional discussion). Because operation of the Proposed Project would have no growth-inducing impacts, it would not create a need for new schools, hospitals, or other public services. Therefore, impacts resulting from the operation of the Proposed Project would be a less than significant impact on public services. Long-term impacts to recreational facilities in the Proposed Project area are evaluated in Section 4.15, Recreation.

4.14.5 Alternative Substation Site

The Alternative Substation site has a similar setting to that of the Proposed Substation site, and activities during construction and operation of the Alternative Substation site would be similar to those during construction and operation of the Proposed Substation site. As a result, impacts to public services would be similar to those of the Proposed Substation site. Impacts to public services would be less than significant.

4.14.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes have a similar setting to that of the Proposed Subtransmission Source Line Routes, and activities during construction and operation of the Alternative Subtransmission Source Line Routes would be similar to those during construction and operation of the Proposed Subtransmission Source Line Routes. As a result, impacts to public services would be similar to those of the Proposed Subtransmission Source Line Routes. Impacts to public services would be less than significant.

4.14.7 References

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California Department of Forestry and Fire Protection. 2010. CAL FIRE webpage. [online] http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_sanbernardino_city_maps.php [cited July 2010].

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4.15 Recreation

This section describes recreation facilities and uses in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives on the recreation facilities and uses are also discussed.

4.15.1 Environmental Setting

Overview of Recreation Areas

Currently, the County of San Bernardino maintains nine regional parks. County recreational facilities include ball fields, equestrian facilities, fishing, swimming, and cultural facilities (San Bernardino County, 2010). The City of Fontana maintains over 40 parks, tot lots, sports facilities and other facilities in the community, including eight community centers (City of Fontana, 2010). The City of Rialto maintains nine parks with ball fields, public picnic facilities, and playground equipment, as well as six community centers (City of Rialto, 2010a). The City of Rancho Cucamonga maintains 29 parks and eight community centers (City of Rancho Cucamonga, 2010a). Private recreational facilities, such as tennis/basketball courts, pools/spas, and playgrounds, can be found primarily in planned communities and apartment complexes. There are also several existing commercial recreational facilities in the vicinity, including golf courses, polo and equestrian centers, and water/amusement parks.

Federal Parks

Under authority of the U.S. Department of Agriculture, the U.S. Forest Service manages the majority of federal lands within the mountain regions of San Bernardino County. The San Bernardino National Forest, located approximately 2 miles northwest of the Proposed Substation site, consists of 665,753 acres of land that provide open space and recreational opportunities for the 24 million residents of Southern California. Approximately 456,928 acres of this total are located within San Bernardino County. The Angeles National Forest covers over 650,000 acres, of which 10,352 acres are located within San Bernardino County (San Bernardino County General Plan 2007; California State Parks, 2010).

The National Park Service (NPS), an agency of the U.S. Department of the Interior, oversees the use of national parks. The NPS manages three national parks within San Bernardino County, including Death Valley National Park, Mojave National Preserve, and Joshua Tree National Park. Only the Mojave National Preserve is entirely within the County boundaries. The northern portion of Joshua Tree National Park lies within San Bernardino County, while the remaining portion lies within Riverside County. The southern portion of Death Valley National Park lies within San Bernardino County, while the remaining portion lies within Inyo County (San Bernardino County, 2007).

State Recreation Areas

The California Department of Parks and Recreation manages three State Recreation Areas (SRAs) within San Bernardino County. The SRA nearest the Proposed Project is the Silverwood Lake SRA, located approximately 10 miles northeast of the Proposed

Substation site. The Silverwood Lake SRA includes the largest reservoir in San Bernardino County, surrounded by 2,400 acres of recreation land and a stretch of the Pacific Crest Trail. The Pacific Crest Trail is a national scenic trail spanning 2,650 miles from Mexico to Canada. Activities include trails for hiking and biking, camping, fishing, and swimming (San Bernardino County, 2007).

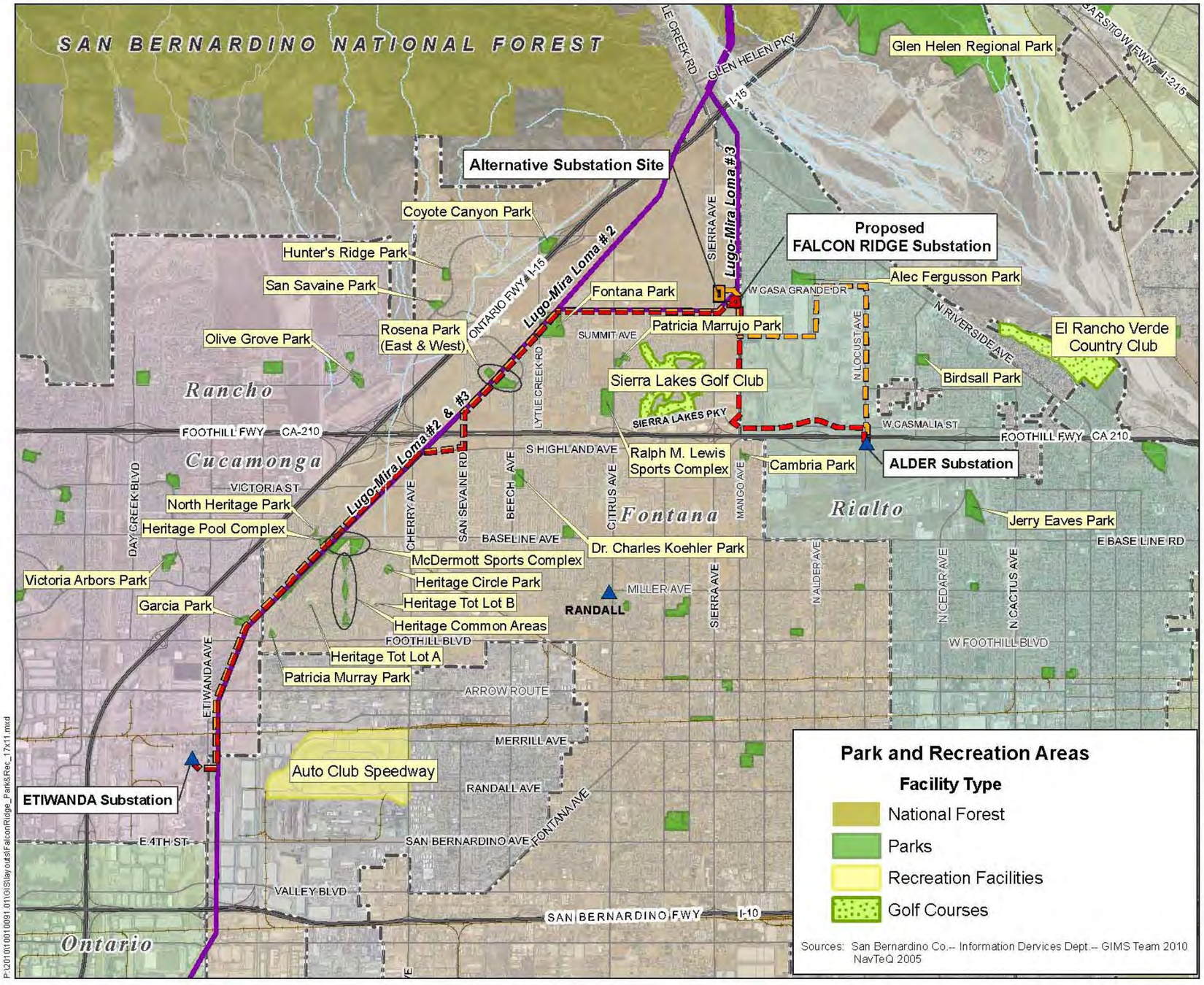
County Regional Parks

Nine regional parks are located within San Bernardino County: Calico Ghost Town Regional Park, Cucamonga-Guasti Regional Park, Glen Helen Regional Park, Lake Gregory Regional Park, Moabi Regional Park, Mojave Narrows Regional Park, Mojave River Forks Regional Park, Prado Regional Park, and Yucaipa Regional Park. The regional parks in the vicinity of the Proposed Project are Glen Helen Regional Park and Lake Gregory Regional Park. Glen Helen Regional Park is located approximately 4 miles northeast of the Proposed Substation site. This 1,340-acre park includes 46 recreational vehicle sites, tent and group camping areas, and offers recreational opportunities for hiking, swimming, and fishing, as well as picnic areas. Lake Gregory Regional Park (150 acres) is located approximately 10 miles northeast of the Proposed Substation site and offers a variety of leisure and recreational activities including year-round fishing, boat rentals, picnic sites, a fitness trail, waterslides, a horseshoe pit, and sandy beaches (San Bernardino County, 2006).

City Parks

The nearest City parks to the Proposed Project are the Alec Fergusson Park in the City of Rialto and Fontana Park in the City of Fontana. Located approximately 0.55 mile northeast of the Proposed Substation site is the Alec Fergusson Park at 2395 W. Sunrise Drive, Rialto. Alec Fergusson Park is a neighborhood park with a roller hockey rink, walking track, picnic area, ball fields and picnic facilities (City of Rialto, 2010a). Located approximately 2 miles west of the Proposed Substation site and adjacent to the Proposed Etiwanda Subtransmission Source Line Route is Fontana Park at 15556 Summit Avenue. Fontana Park is a recreational facility that includes the Jessie Turner Health & Fitness Center, an aquatics center, a skate and BMX park, a dog park, and a sports arena (City of Fontana, 2010). Parks and recreation facilities are shown on Figure 4.15, Parks and Recreation Areas in the Vicinity of the Proposed Project.

Please refer to Table 4.15-1, City Parks in the Vicinity of the Proposed Project, for a listing of the parks and recreational facilities in the cities of Fontana, Rialto, and Rancho Cucamonga.



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Falcon Ridge Substation Project

Figure 4.15

Parks & Recreation Areas in the Vicinity of the Proposed Project

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

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Table 4.15-1 City Parks in the Vicinity of the Proposed Project

Facility	Size
City of Fontana	
Cambria Park	2.5 acres
Heritage Circle Park	3.0 acres
Heritage Pool Complex	2.5 acres
Dr. Charles A. Koehler Park	10.0 acres
McDermott Sports Complex	17.0 acres
Fontana Park	37.5 acres
North Heritage Park	2.9 acres
Hunter's Ridge Park	4.7 acres
Ralph M. Lewis Sports Complex	n/a
Rosena Park West	3.4 acres
Rosena Park East	14.3 acres
Patricia Marrujo Park	n/a
Patricia Murray Park	n/a
San Savaine Park	5.7 acres
Heritage Tot Lot A	0.5 acres
Heritage Tot Lot B	0.5 acres
City of Rialto	
Birdsall Park	10.0 acres
Alec Fergusson Park	18.0 acres
Jerry Eaves Park	22.0 acres
City of Rancho Cucamonga	
Coyote Canyon Park	5.0 acres
Garcia Park	5.5 acres
Olive Grove Park	7.9 acres
Victoria Arbors Park	9.1 acres

Source: City of Fontana, 2003; City of Rancho Cucamonga, 2010B; City of Rialto, 2010b.

Other Recreational Areas

Two public golf courses are located in the vicinity of the Proposed Substation site. Sierra Lakes Golf Course, an 18-hole golf course located 0.5 mile southwest of the Proposed Substation site, includes banquet, restaurant, and clubhouse facilities. El Rancho Verde Country Club, an 18-hole golf course located approximately 3 miles east of the Proposed Substation site, also includes banquet, restaurant, and clubhouse facilities. Other recreational opportunities in the vicinity of the Proposed Project include the Auto Club

Speedway, located approximately 1 mile east of the Etiwanda Substation. The Auto Club Speedway is a motorsports facility with a 2-mile oval race track and an entertainment stage for concerts (Auto Club Speedway, 2010).

Trails

There are four active regional recreational trails within San Bernardino County: the Pacific Electric Inland Empire Trail, the Jurupa Hills Trail, the Frontline Trail, and the Baseline Trail. The Pacific Electric Inland Empire Trail is a 21-mile long regional multipurpose trail that extends from Claremont to Rialto and traverses the Proposed Etiwanda Subtransmission Source Line Segment north of Baseline Avenue in an east-west direction (City of Rancho Cucamonga, 2010c). The Jurupa Hills Trail is a trail system that traverses the Jurupa Hills and connects the Martin Tudor Regional Park to the Santa Ana River Trail in Riverside County. The Jurupa Hills Trail runs in a north-south direction approximately 6 miles southeast of the Etiwanda Substation. The Frontline Trail traverses the base of the San Gabriel Mountains between San Antonio Creek Trail on the west and the Lytle Creek Trail, approximately 3 miles north of the Proposed Substation site. The Baseline Trail is an on-road trail approximately 8 miles north of the Proposed Substation site that connects San Antonio Creek Trail on the west to the Cajon Creek Trail between Rialto and San Bernardino (City of Fontana, 2003). All of the trails in the County are multi-use trails that allow pedestrian, bicycle, and equestrian use.

Specific Plans

Several of the specific plans within the Proposed Project area include a recreation element. The Summit at Rosena Specific Plan is located west of the Proposed Substation site and is traversed by the Proposed Subtransmission Source Line Routes. The Summit at Rosena Specific Plan will include the 20-acre Edison Trails Park, a mainly passive recreational area with walking and bike paths, six exercise stations, and a garden. The Arboretum Specific Plan, located northwest of the Proposed Substation site, will include public and private recreational facilities including parks, trails and gardens. The Proposed Etiwanda Subtransmission Source Line Route would cross diagonally through the Citrus Heights North Specific Plan, which will include public and private recreation facilities such as a community sports center, neighborhood parks, and a comprehensive trail system; the approved Summit Heights Specific Plan, which will include public and private recreational facilities; and the Westgate Specific Plan, which will include approximately 15 acres of park land as well as other recreational facilities (City of Fontana, 2010).

4.15.2 Regulatory Setting

There are no recreation-related laws, rules, or regulations that apply to the Proposed Project or the alternatives.

4.15.3 Significance Criteria

The significance criteria for assessing the impacts to recreational resources come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- 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

- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment

4.15.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

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?

Construction and operation of the Proposed Project would not cause population growth that would result in increased use of recreational facilities (see Section 6.2, Growth Inducing Impacts, for further discussion). The Proposed Substation site would be unattended and automated, requiring only occasional visits for routine maintenance and emergency repair. Workers may occasionally want to sit in a park to eat lunch, but that is likely to be rare and infrequent in the case of maintenance workers, and temporary in the case of construction workers. Therefore, there would be no impacts related to increased use that would cause substantial deterioration of local recreational facilities during construction or operation of the Proposed Project.

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?

Construction and operation of the Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities, as it is not a residential use and would not induce population growth (please see Section 6.2, Growth Inducing Impacts, for additional discussion). As a result, there would be no impact to the environment from new or expanded recreational facilities.

4.15.5 Alternative Substation Site

The Alternative Substation site has a similar setting to that of the Proposed Substation site, and is similar in scope. As a result, impacts to recreation would be similar to those of the Proposed Substation site. There would be no impact to recreation or associated physical effects on the environment.

4.15.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes have a similar setting to that of the Proposed Subtransmission Source Line Routes, and are similar in scope. As a result, impacts to recreation would be similar to those of the Proposed Subtransmission Source Line Routes Project. There would be no impact from increased use of recreation facilities or associated physical effects on the environment.

4.15.7 References

Auto Club Speedway. 2010. [online] http://www.autoclubspeedway.com/ [cited July 2010].

California State Parks. 2010. [online] http://www.parks.ca.gov/ [cited July 2010].

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City of Fontana. 2010. Centers and Parks webpage [online] http://www.fontana.org/index.aspx?nid=156 [cited July 2010].

City of Rancho Cucamonga. 2010a. Community Services Department webpage [online] http://www.rcpark.com/ [cited July 2010].

City of Rancho Cucamonga. 2010b. General Plan. Adopted May 2010.

City of Rancho Cucamonga. 2010c. Pacific Electric Inland Empire Trail webpage [online] http://www.ci.rancho-cucamonga.ca.us/govt/pet.htm [cited August 2010].

City of Rialto. 2010a. Recreation and Community Services webpage [online] http://www.rialtoca.gov/recreation_parks.php [cited July 2010].

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San Bernardino County. 2006. Economic Development Agency. [online] http://www.sbcounty.gov/opporteunityca/home_community/sbrp_lakeGregRegPrk.html [cited July 2010].

San Bernardino County. 2007. General Plan. Adopted March 13, 2007.

San Bernardino County. 2010. Regional Parks webpage [online] http://www.county-parks.com/ [cited July 2010].

4.16 Transportation and Traffic

This section describes transportation and traffic in the area of the Proposed Project. The potential impacts of the Proposed Project and alternatives are also discussed.

4.16.1 Environmental Setting

The regional transportation system is comprised of interstate highways, state highways and local roads within San Bernardino County and the cities of Fontana, Rialto and Rancho Cucamonga. Regional access to the area is provided by three major freeways: The 10 Freeway, the 15 Freeway, and the 210 Freeway.

The 15 Freeway is an eight-lane freeway that traverses in a northeast-southwest direction northwest of the Proposed Substation site. To the north, the 15 Freeway connects with the 215 Freeway. The 10 Freeway is an eight-lane east-west freeway, which traverses the southern portions of Rancho Cucamonga and Fontana and connects with the 15 Freeway to the west. The 210 Freeway is an eight-lane freeway that runs east-west to the south of the Proposed Substation site, connecting Fontana with the 210 Freeway in Los Angeles County. The 210 Freeway extends east connecting with the 215 Freeway in the City of San Bernardino.

As discussed in Section 4.16.4, Impact Analysis, construction and operation of the Proposed Substation site is anticipated to generate the highest amount of traffic in the vicinity of a single location during construction and operation of the Proposed Project. Additionally construction of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities would take place on access roads, which are not used by the public, or along existing roads not commonly used for commuter travel. Therefore, impacts to transportation and traffic would be greatest in the vicinity of the Proposed Substation site, and the discussion of the local transportation and traffic setting focuses primarily on the area of the Proposed and Alternative Substation sites.

The local transportation system in the vicinity of the Proposed Substation site consists primarily of a semi-rural north-south/east-west grid system of roadways bordered by large-lot residential properties and housing tracts in the City of Fontana. The main roadways expected to be used by construction workers commuting to the Proposed Substation site and the Alternative Substation site are Sierra Avenue and Summit Avenue.

Sierra Avenue south of Summit Avenue is designated as a major highway (six-lane undivided north-south arterial) in the Recommended Circulation Master Plan of the City of Fontana General Plan Circulation Element (City of Fontana, 2003a). Adjacent land uses consist of residential areas to the west and commercial/industrial uses to the east. North of Summit Avenue and south of the connection with the 15 Freeway, Sierra Avenue is a collector street (two-lane undivided arterial) that traverses primarily undeveloped areas. Sierra Avenue is also designated as a truck route between the 210 Freeway and the 15 Freeway. The City of Fontana has plans to widen the portion of

Sierra Avenue north of Summit Avenue, as classified in the Recommended Circulation Master Plan in the City's Circulation Element (City of Fontana, 2003a).

Summit Avenue is designated as a secondary highway (four-lane divided east-west arterial) in the City of Fontana General Plan Circulation Element (City of Fontana, 2003a) from the connection with the 15 Freeway to Citrus Avenue. From Citrus Avenue to its current terminus at Sierra Avenue, Summit Avenue is a two-lane undivided arterial. Summit Avenue primarily provides access to residential neighborhoods and commercial/retail uses.

The intersection of Sierra Avenue and Summit Avenue, located southwest of the Proposed and Alternative Substation sites, is a three-legged signalized intersection. At this intersection, Summit Avenue provides separate left and right-turn lanes. The northbound approach on Sierra Avenue provides a left-turn lane and two through lanes. The southbound approach on Sierra Avenue provides striping for a left-turn lane, two through lanes, and a right-turn lane. This intersection would be the primary access point for traffic accessing the Proposed and Alternative Substation sites.

Traffic count data was provided by the City of Fontana Traffic Engineering Department (City of Fontana, 2010) for the intersection of Summit Avenue and Sierra Avenue for September 2006 conditions. The average daily trips[1] (ADT) on Sierra Avenue (from the 15 Freeway to Summit Avenue in 2007 and from Summit Avenue to Sierra Lakes Parkway in 2003) were also provided by the City of Fontana (2010). To reflect existing (2010) conditions, an ambient growth rate (consistent with the City's recommendation) of two percent per year was applied to the count data.

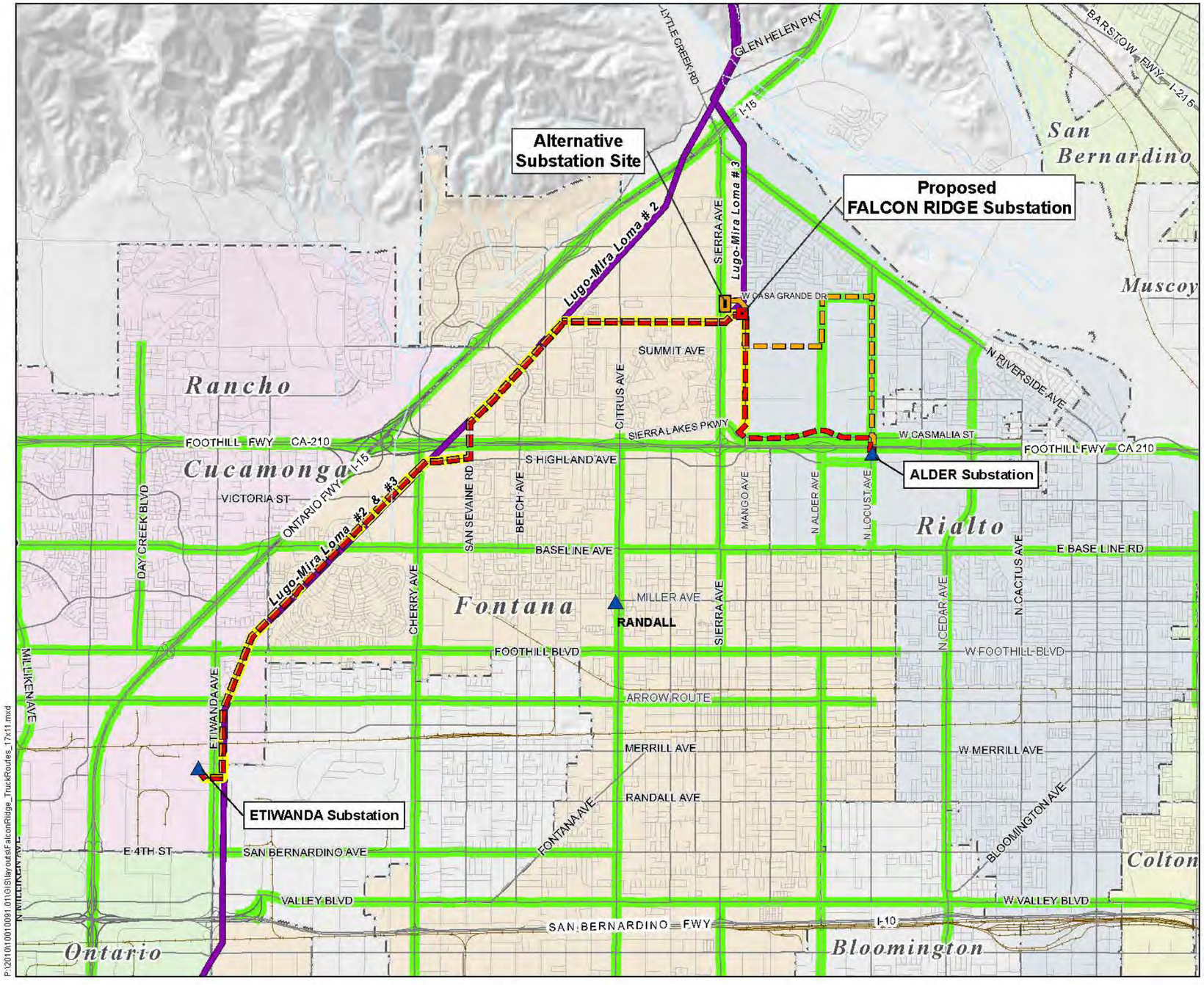
Truck Routes

Truck routes in California allow a single trailer with a 53-foot maximum length and double trailers with a maximum of 28.5 feet for each trailer. Within the area of the Proposed Project, the 15 Freeway and the 210 Freeway are designated truck routes. Locally, between the 15 and 210 Freeways, Sierra Avenue is the only arterial in the vicinity of the Proposed and Alternative Substation sites that is designated as a truck route. Truck routes in the area of the Proposed Project, from the City of Fontana General Plan Circulation Element (City of Fontana, 2003b), are shown on Figure 4.16, Designated Truck Routes.

Bikeways and Trails

Bikeways in the vicinity of the Proposed and Alternative Substation sites were identified from the County of San Bernardino (2010). The south side of Summit Avenue, from west of the 15 Freeway to Sierra Avenue, has a designated bike lane with street markings. In

[1] ADT is the average number of vehicles passing a specific point in a 24-hour period. ADT is the standard measurement for vehicle traffic load on a section of road and the basis for most decision-making regarding transport planning. Road authorities have established norms based on ADT, with evaluations to expand road capacity at given capacity thresholds.



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Falcon Ridge Substation Project

Figure 4.16

Designated Truck Routes

Designated Truck Routes

Sources: City of Fontana -- Circulation Element 2003
City of Rancho Cucamonga -- General Plan (Exh III-3) 2001
City of Rialto -- Draft General Plan (Exh 4.5) 2010

Project Components

Substation Site

Source Line Route and Telecommunication Facilities

- **Proposed**
- **Alternative**
- **Common to Both**

Access Roads

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Sources: NAIP 2009 / SAN BERNARDINO CO GIS / SCE 2010

0 0.5 1 2 Miles

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addition, Citrus Avenue and Sierra Lakes Parkway (located west and south of the Proposed and Alternative Substation sites, respectively) also have dedicated bike lanes.

No trails or associated signage exist within the vicinity of the Proposed and Alternative Substation sites, as evidenced in the City of Fontana General Plan Parks, Recreation, and Trails Element (City of Fontana, 2003c).

Fixed Bus Routes

Public transportation in the Fontana area is provided by Omnitrans, the regional public transit operator for San Bernardino County. Omnitrans service in Fontana is primarily oriented in the east-west direction, connecting the City of Fontana to the adjacent communities of Rialto and San Bernardino to the east, and Rancho Cucamonga and Ontario to the west. A north-south connection across the 10 Freeway is provided on Sierra Avenue. Currently, Omnitrans provides service on 10 fixed routes in Fontana.

Service within the vicinity of the Proposed and Alternative Substation sites occurs on Omnitrans Route 82: Rancho Cucamonga – Fontana – Sierra Lakes and runs along Summit Avenue between Beech Avenue and Citrus Avenue, on Citrus Avenue between Beech Avenue and Sierra Lakes Parkway, on Sierra Lakes Parkway from Citrus Avenue to Sierra Avenue, and on Sierra Avenue from Sierra Lakes Parkway to south of the 10 Freeway (Omnitrans, 2010).

Freight/Passenger Rail Service

No freight rail lines are in the vicinity of the Proposed and Alternative Substation sites. The nearest passenger rail service is at the Amtrak station located in San Bernardino, approximately 8 miles to the southeast of the Proposed Substation site (Amtrak Passenger Rail, 2010). Metrolink provides a commuter rail station in Fontana, south of Foothill Boulevard near Sierra Avenue, approximately 4 miles from the Proposed Substation site (Metrolink Southern California Regional Rail Authority, 2010).

Nearest Airport Land Use Compatibility Plan

The nearest Airport Land Use Compatibility Plans (ALUCP) in effect for operating facilities include Rialto Municipal Airport, approximately 2 miles southeast of the Proposed Substation site and approximately 0.5 mile from the Alder Substation, San Bernardino International Airport, 12 miles southeast of the Proposed Substation site, Ontario International Airport, 12 miles southwest of the Proposed Substation site, and Redland Municipal Airport, 17 miles southeast of the Proposed Substation site.

The Rialto Municipal Airport is a general aviation airport. The Rialto Municipal Airport is used by privately operated and chartered aircraft; it is not used by commercial airlines (Scanlan, 2010). The Rialto Municipal Airport was approved for closure by Congress in 2005, and the City of Rialto has since initiated the process to close the airport. However, the Rialto Municipal Airport is currently open and projected to close within the next five to 10 years (2015-2020) (Scanlan, 2010).

4.16.2 Regulatory Setting

Federal Aviation Administration

The Federal Aviation Administration (FAA) has established notification requirements for construction within the vicinity of airports (Title 14 Code of Federal Regulations Section 77.13(a)(1)). Specifically, the FAA is to be notified of any construction or alteration greater in height than the distance from the closest runway divided by 100, out to a distance of 20,000 feet. The Proposed Alder Subtransmission Source Line Route poles could be up to 100 feet in height, and cranes used to install the poles would extend above this height. Therefore, SCE would be required to notify the FAA prior to commencing construction of the portion of the Proposed Alder Subtransmission Source Line Route within approximately 10,000 feet of the closest runway at the Rialto Municipal Airport. This would include all of the Proposed Alder Subtransmission Source Line Route except for approximately 0.3 mile closest to the Proposed Substation site.

The FAA has also established limits on the height of objects that could obstruct air navigation (Title 14 Code of Federal Regulations Section 77.25). These limits depend on the distance and direction of the object to the airport runways. For objects that are not aligned with airport runways, the height is limited to 150 feet for objects within 5,000 feet from the end of each runway. Beyond 5,000 feet, out to a total distance of 9,000 feet, the height is limited to the distance beyond 5,000 feet, divided by 20, plus 150 feet.

California Department of Transportation

The California Department of Transportation (Caltrans) manages state highways in California. Caltrans has the discretionary authority to issue special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight, and loading of vehicles contained in Division 15 of the California Vehicle Code, and to issue encroachment permits for the use of California State highways for purposes other than normal transportation.

County of San Bernardino and City of Fontana

Within the vicinity of the Proposed and Alternative Substation sites, both the County of San Bernardino General Plan Circulation Element (County of San Bernardino, 2007) and the City of Fontana General Plan Circulation Element (City of Fontana, 2003a) establish regional transportation objectives, policies, and implementation measures for various modes of transportation. The County of San Bernardino requires that roadways maintain target Levels of Service (LOS) consistent with those set forth in the San Bernardino Congestion Management Program (CMP) System LOS Element (San Bernardino Associated Governments, 2007).

LOS analysis is typically used to evaluate congestion and delay by defining a relationship between traffic volume and capacity of the roadway. The relative level of congestion is evaluated on a scale from A through F. LOS A indicates free-flow conditions with no delay whereas LOS F indicates breakdown of the system with very long delays.

The San Bernardino CMP requires that all CMP segments and intersections operate at LOS E or better, whereas the City of Fontana has established a standard of LOS D or better on City arterials.

4.16.3 Significance Criteria

The significance criteria for assessing the impacts to transportation and traffic come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

- Result in inadequate emergency access

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

4.16.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

The Proposed Project is located a substantial distance from most airports and airfields and is not located near main passenger flight corridors in Southern California. However, the Rialto Municipal Airport is located within approximately 0.5 mile of the Alder Substation and the Proposed Alder Subtransmission Source Line Route. Neither the Alder Substation nor the Proposed Alder Subtransmission Source Line Route facilities would

be aligned with the runways at the Rialto Municipal Airport. Therefore, as discussed previously in Section 4.16.2, Regulatory Setting, Subtransmission Source Line Route facilities would not be considered obstructions to air navigation under Title 14 Code of Federal Regulations Section 77.25, unless their height exceeds 150 feet within 5,000 feet of the airport runways. The maximum height of the Proposed Alder Subtransmission Source Line Route facilities is approximately 100 feet, and construction cranes would be less than the 150-foot obstruction limit. These heights are less than the 150-foot limit which would be considered an obstruction to air navigation. Therefore, construction and operation of the Proposed Project would not create obstructions to air navigation which would result in a change in air traffic patterns.

Construction and operation of the Proposed Project would not involve the use of helicopters. There would be no impact to air traffic patterns from construction and operation of the Proposed Project.

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)?

There are no design features of the Proposed Project that would increase hazards or create an incompatible use with transportation or traffic. The width of the Proposed Substation site access driveway off of Sierra Avenue can accommodate large truck movements and deliveries, and new access roads for the Proposed Subtransmission Source Line Routes would be designed to accommodate construction equipment used for construction of the Proposed Subtransmission Line Routes and Proposed Telecommunication Facilities. No impacts would occur.

Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The Proposed Project is not in conflict with any local or regional policies, plans, or programs supporting alternative transportation, including public transit, bicycle, or pedestrian facilities as no such facilities are located on or adjacent to the Proposed Project. No impacts would occur.

Construction Impacts

Construction of the Proposed Project would result in less than significant impacts for the following CEQA criteria:

Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Construction traffic to and from the Proposed Project would include crews and equipment for construction of the Proposed Substation site, the Proposed Distribution Getaways, proposed modifications to the Alder and Etiwanda Substations, the Proposed Subtransmission Source Line Routes and the Proposed Telecommunication Facilities. Based on the anticipated construction phasing, the maximum number of construction workers that would be required on a single day would be 26 for the Proposed Substation site, 13 for modifications to the Alder Substation, six for modifications to the Etiwanda Substation and 14 for the Proposed Distribution Getaways. The anticipated maximum number of construction workers that would be required at a single location on a single day would be 20 for the Proposed Subtransmission Source Line Routes and 11 for the Proposed Telecommunication Facilities.

Therefore, construction of the Proposed Substation site is anticipated to generate the highest amount of construction traffic at a single location in comparison to construction of the other components of the Proposed Project. Additionally, construction of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities would take place on access roads, which are not used by the public, or along existing roads not commonly used for commuter travel.

With an anticipated maximum of 26 workers on site for construction of the Proposed Substation site on a single day during the 12-month construction period, construction worker commuting is estimated to add approximately 52 ADT. The construction worker commuting vehicles would utilize both Summit Avenue (trips originating/destined from/to the 15 Freeway) and Sierra Avenue (trips originating/destined from/to the 210 Freeway and from/to the 15 Freeway). For the assessment of construction-related impacts, it was assumed that all workers would use both Summit Avenue and Sierra Avenue to access the Proposed Substation site.

Materials for construction activities would be delivered by truck. Generally, material deliveries would be scheduled during off-peak hours[2], utilizing Sierra Avenue (designated truck route) to access the Proposed Substation site. This traffic is not anticipated to occur during peak traffic periods.

[2] The peak traffic periods are 6:30 a.m. to 8:30 a.m. and 3:00 p.m. to 6:00 p.m. Off-peak hours are the rest of the hours during the day.

A generalized daily LOS analysis was conducted on Sierra Avenue and Summit Avenue to determine existing conditions. The LOS analysis was used to evaluate congestion and delay for the two roadway segments. The relative level of congestion is evaluated on a scale from A through F. LOS A indicates free-flow conditions with no delay whereas LOS F indicates breakdown of the system with very long delays. The City of Fontana (2003a) considers LOS D to be the worst acceptable LOS within the area of the Proposed Substation site.

The relationships between the traffic volume, capacity and LOS are shown below:

- Volume is 0 through 60 percent of capacity: LOS A
- Volume is 61 through 70 percent of capacity: LOS B
- Volume is 71 through 80 percent of capacity: LOS C
- Volume is 81 through 90 percent of capacity: LOS D
- Volume is 91 through 100 percent of capacity: LOS E
- Volume is over 100 percent of capacity: LOS F

According to the City of Fontana General Plan Circulation Element (City of Fontana, 2003a), typical roadways can accommodate approximately 9,000 vehicles per lane per day. The capacities of Summit Avenue and Sierra Avenue were calculated using the this assumption and compared with the existing traffic volumes to determine LOS (and corresponding volume-to-capacity ratio).

As shown Table in 4.16-1, Existing and Existing plus Construction Traffic Volumes and Levels of Service, all roadway segments within the Proposed Substation site area are currently operating at acceptable LOS A. The addition of 52 ADT to the existing daily traffic volumes on Sierra Avenue and Summit Avenue would not change the level of service (in terms of volume-to-capacity ratios) that the roadways are currently experiencing.

In addition, as described in Section 3.2.1.4, Traffic Control, construction activities conducted within public street rights-of-way (ROW) may require the use of various traffic control services such as flaggers to stop and slow traffic. Any and all potential lane closures would be conducted consistent with local ordinances, and SCE would obtain permits as required from the appropriate agencies. Since any closures due to construction of the Proposed Substation site would be isolated, temporary, short in duration, and coordinated with other agencies, traffic would not be significantly disrupted. SCE would employ commonly used traffic control measures consistent with those published in the California Joint Utility Traffic Control Manual (CJUTCM) by the California Joint Utility Traffic Control Committee (2010).

Table 4.16-1 Existing and Existing Plus Construction Traffic Volumes and Levels of Service

Road	From	To	Year	ADT[1]	ADT Adjusted to 2010[2]	Capacity[3]	Existing V/C[4]	LOS[5]	Existing + Project ADT[6]	Existing + Project V/C	LOS
Sierra Ave	15 Freeway	Summit Ave	2007	10,200	10,812	18,000	0.60	A	10,854	0.60	A
	Summit Ave	Sierra Lakes Pkwy	2003	12,200	13,908	54,000	0.26	A	13,960	0.26	A
Summit Ave	15 Freeway	Beech Ave	2003	6,000	6,840	36,000	0.19	A	6,892	0.19	A
	Beech Ave	Lytle Creek Rd	2003	2,000	2,280	36,000	0.06	A	2,332	0.07	A
	Lytle Creek Rd	Citrus Ave	2003	1,000	1,140	36,000	0.03	A	1,192	0.04	A
	Citrus Ave	Cypress Ave	2003	2,000	2,280	18,000	0.13	A	2,332	0.14	A
	Cypress Ave	Sierra Ave	2003	2,000	2,280	18,000	0.13	A	2,332	0.14	A

Notes:

[1] Average Daily Traffic (ADT) obtained from City of Fontana Engineering Department and General Plan Circulation Element (2003a).

[2] An ambient growth rate of two percent per year, consistent with City of Fontana recommendations, was applied to estimate existing 2010 conditions.

[3] Capacity of 9,000 vehicles per lane per day per the City of Fontana General Plan Circulation Element (2003a).

[4] V/C = volume-to-capacity ratio

[5] LOS = Level of Service: 0 - 0.60 = A, 0.61 - 0.70 = B, 0.71 - 0.80 - C, 0.81 - 0.90 = D, 0.91 - 1.00 = E, >1.00 = F

[6] Project ADT of 52 vehicles added to existing ADT.

The bus station and bus stop signs along Sierra Avenue and Summit Avenue will not be affected by construction of the Proposed Substation site. The designated bikeway on the south side of Summit Avenue is not anticipated to be disturbed during construction. Since no trails exist in the vicinity of the Proposed Substation site, no disruptions to trail activities would occur during construction.

Construction of the Proposed Substation site would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. As a result, impacts related to increased traffic during construction would be less than significant.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Sierra Avenue is the only designated CMP roadway located in the Proposed Substation site area. As discussed above, the amount of construction traffic, when added to the existing daily traffic on roadways in the area, would not have a significant adverse effect and would not change the LOS on the roadway. Material delivery to the construction related sites as defined in Chapter 3, Project Description, would vary throughout the progress of the project, with most occurring during off-peak hours. Impacts to CMP locations would be less than significant.

Would the project result in inadequate emergency access?

Construction of the Proposed Project may require alterations to local roadways. As such, if any work requires modifications or activities within the local road ROWs, SCE would obtain appropriate local permits. This process would involve the preparation of appropriate management plans and provisions to ensure adequate compliance with local ordinances.

Also, as discussed in Section 3.5, Hazards and Hazardous Materials, if any work were to potentially limit access, permits would be obtained and plans would be implemented to ensure safety and avoid the closure of any emergency access route. Furthermore, the results of the LOS analysis indicate that the addition of construction traffic to existing street traffic will not cause additional delays to any emergency response vehicles.

Therefore, construction of the Proposed Project would not result in inadequate emergency access to the area affected by the Proposed Project. As a result, impacts to emergency access would be less than significant.

Operation Impacts

Operation of the Proposed Project would result in less than significant impacts for the following CEQA criteria:

Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The Proposed Substation would be unattended and remotely operated. Normal operation of the Proposed Subtransmission Source Line Routes and Proposed Telecommunication Facilities would be controlled remotely through SCE control systems. SCE maintains an inspection frequency of the energized subtransmission overhead facilities a minimum of once per year via ground and/or aerial observation. The frequency of inspection and

maintenance activities would depend upon weather effects and any unique problems that may arise due to such variables as substantial storm damage or vandalism.

These operations would not result in a substantial increase in traffic in relation to existing traffic load and capacity of the street system. As a result, impacts to an increase in traffic during operation of the Proposed Project would be less than significant.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Sierra Avenue is the only designated CMP roadway located in the Proposed Substation site area. As discussed above, operation of the Proposed Project would not result in a substantial increase in traffic. As a result, impacts to CMP locations would be less than significant.

Would the project result in inadequate emergency access?

Operation of the Proposed Project would not result in a substantial increase in traffic in relation to existing traffic load and capacity of the street system. Therefore, operation of the Proposed Project would not result in inadequate emergency access to the area affected by the Proposed Project. As a result, impacts to emergency access would be less than significant.

4.16.5 Alternative Substation Site

The Alternative Substation site has similar physical and geographic characteristics to the Proposed Substation site. The number of construction workers and material deliveries during construction of the Alternative Substation site would be similar to those during construction of the Proposed Substation site, and construction workers and delivery trucks would use the same roadways to access the Alternative Substation site as the Proposed Substation site. The frequency and number of trips to the Alternative Substation site during operation would be the same as to the Proposed Substation site. Therefore, construction and operation impacts of the Alternative Substation site would be similar to those for the Proposed Substation site. Impacts would be less than significant.

4.16.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes have similar physical and locational characteristics to the Proposed Subtransmission Source Line Routes. Construction and operation impacts of the Alternative Subtransmission Source Line Routes would be similar to those for the Proposed Subtransmission Source Line Routes. Impacts would be less than significant.

4.16.7 References

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4.17 Utilities and Service Systems

This section describes utilities and service systems in the area of the Proposed Project. The potential impacts of the Proposed Project and the alternatives are also discussed.

4.17.1 Environmental Setting

Water Resources

The principal water agency in San Bernardino County is the San Bernardino Valley Municipal Water District (SBVMWD). SBVMWD imports water through participation in the State Water Project and manages groundwater storage within its boundaries (SBVMWD, 2010). The primary providers for drinking water, sewage collection, treatment, and disposal services for the area of the Proposed Project are the local jurisdictions. The City of Rialto provides water and wastewater utilities to its residents. The Fontana Water Company provides water and wastewater services to the City of Fontana, portions of Rialto and Rancho Cucamonga, as well as adjacent unincorporated San Bernardino County. The Cucamonga Valley Water District provides water and wastewater services to the City of Rancho Cucamonga as well as portions of Fontana and unincorporated San Bernardino County.

Waste Management

The County of San Bernardino Solid Waste Management Division provides waste and recycling services to San Bernardino County and operates five regional landfills, eight transfer stations, and two community collection centers. Trash collection in the unincorporated areas of San Bernardino County is provided by private haulers (San Bernardino County, 2010a). The Mid-Valley Landfill, located at 2390 N. Alder Avenue in the City of Rialto, is located approximately 0.50 mile south of the Proposed Substation site. The landfill property is comprised of approximately 498 acres, of which approximately 222 acres are currently used for waste disposal activities. The landfill has an annual disposal capacity of approximately 762,729 tons and is expected to reach capacity in 2033 (CalRecycle, 2010).

Electricity and Natural Gas

San Bernardino County is served by several major utilities that provide electricity and natural gas. Southern California Edison Company (SCE) is the principal provider of electricity in the vicinity of the Proposed Project. The Southern California Gas Company is the principal provider of natural gas.

Flood Control

Regional flood control planning is under the jurisdiction of the San Bernardino County Flood Control District (SBCFCD). SBCFCD provides flood protection on major streams, water conservation, and storm drain construction, and is responsible for implementation of the Drainage Area Management Plan. The cities within San Bernardino County implement construction and maintenance of local storm drains that feed into the County's area-wide system (San Bernardino County, 2010b).

4.17.2 Regulatory Setting

See Section 4.9, Hydrology and Water Quality, for a detailed discussion of regulations related to water quality and storm water discharge.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act (IWMA) of 1989 (Public Resource Code [PRC], Division 30), enacted through Assembly Bill 939 and modified by subsequent legislation, requires all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of waste disposed by the year 2000 (PRC Section 41780). The State determines compliance with this mandate to "divert" 50 percent of generated waste, which includes both disposed and diverted waste (PRC Section 41780.2).

San Bernardino Countywide Integrated Waste Management Plan

California counties are required by the IWMA to implement a Countywide Integrated Waste Management Plan (CIWMP), which is a guidance document for attaining the reduction mandate. The CIWMP consists of a Countywide Siting Element (CSE) and a Countywide Summary Plan, as well as a Source Reduction and Recycling Element, a Household Hazardous Waste Element, and a Non-Disposal Facility Element. Individual jurisdictions in the County are responsible for their own integrated solid waste management planning, implementation, monitoring, public information, budgeting and enforcement (San Bernardino County, 2007). The objectives of the CSE are:

- Divert 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting activities
- Develop reduction, recovery, and reuse goals for recyclable materials and focus programs on materials that make up a large portion of the waste stream
- Coordinate or combine similar programs in neighboring jurisdictions to achieve economies of scale and potentially reduce costs to ratepayers
- Enhance waste collection service by including recycling programs
- Eliminate ordinances and other barriers that discourage recycling and composting
- Explore incentives to encourage source reduction and recycling

Although its customers divert solid waste through curbside recycling, the unincorporated areas of the County achieved a reported diversion rate of 49 percent in 2007. Therefore, the County implemented its Comprehensive Disposal Site Diversion Program at County facilities to improve diversion by addressing self-hauled residential and commercial waste (San Bernardino County, 2007).

4.17.3 Significance Criteria

The significance criteria for assessing impacts to utilities and service systems come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB)
- 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
- 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
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements
- 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
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, and local statutes and regulations related to solid waste

4.17.4 Impact Analysis

No Impact

Construction and operation of the Proposed Project would not result in impacts for the following CEQA criteria:

Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Potable water service is available at the Proposed Substation site, but sewer service is currently unavailable. During construction, portable toilets would be provided for use by construction personnel (maximum of approximately 26 workers per day) at the Proposed Substation site and would be maintained by an outside service company for the 12-month construction period. Therefore, wastewater would not be discharged during construction of the Proposed Project.

During operation of the Proposed Project, a portable chemical unit (portable restroom, not connected to local sewer and wastewater treatment system) would be placed within

the substation perimeter wall for use by SCE personnel and maintenance contractors and would be regularly maintained. If, at the time of final engineering, both sewer and water connections become available, a standalone prefabricated permanent restroom may be installed in proximity to the mechanical and electrical equipment room. The Proposed Substation would be unattended and remotely operated, therefore, wastewater discharge would be minimal.

Wastewater would not be discharged during construction or operation of the Proposed Distribution Getaways, Proposed Subtransmission Source Line Routes, or the Proposed Telecommunication Facilities.

Therefore, construction and operation of the Proposed Project would not discharge concentrated wastewater or large volumes of wastewater to a wastewater treatment facility that would exceed treatment requirements set forth by the Santa Ana Regional Water Quality Control Board. As a result, construction and operation of the Proposed Project would have no impact to the treatment requirements of wastewater treatment plants serving the area.

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?

During construction, the use of water for dust suppression would be minimal and short-term, and would not be in volumes or flow rates that would affect water treatment plant capacities. Landscaping and irrigation would be established around the full perimeter of the substation after the perimeter wall is constructed and water service is established. SCE would consult with the local jurisdictions to develop an appropriate landscaping plan. The use of water for landscape irrigation during operation would be minimal, as drought tolerant plants would be used; therefore, irrigation water use would not be in volumes that would affect water treatment plant capacities. Water would not be required during operation of the Proposed Distribution Getaways, the Proposed Subtransmission Source Line Routes or the Proposed Telecommunication Facilities. Therefore, construction and operation of the Proposed Project would not require the expansion of water facilities serving the area; therefore, no impact would occur.

As discussed above, construction and operation of the Proposed Project would not discharge concentrated wastewater or large volumes of wastewater to a wastewater treatment facility. Therefore, construction and operation of the Proposed Project would not require the expansion of wastewater treatment facilities serving the area; therefore, no impact would occur.

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?

The grading plan for the Proposed Substation site and the Storm Water Pollution Prevention Plan would be designed to control the discharge of stormwater runoff from the site, which currently flows into existing drainage. Site design best management practices (BMPs) would be installed within the enclosed substation to reduce and control post-development runoff rates, and source control BMPs would be incorporated into the site plans to reduce the potential for stormwater runoff.

The Proposed Substation site would also be surfaced with gravel as a source control BMP, which would reduce stormwater runoff. The remaining portion of the 7.5-acre parcel would maintain its existing drainage pattern and provide areas for future street improvements and widening, street setbacks, safety buffers and landscaping, if needed. Therefore, construction and operation of the Proposed Substation site would not require the construction of new stormwater drainage facilities or the expansion of existing facilities.

Construction of the Proposed Subtransmission Source Line Routes would span drainages. Placing structures within drainages is not anticipated. The Proposed Telecommunications Facilities and Proposed Distribution Getaways would not add any new aboveground structures. Therefore, their construction and operation would not alter existing drainage patterns or stormwater runoff.

As a result, construction and operation of the Proposed Project would not require construction of new stormwater drainage facilities or expansion of existing facilities in the area. No impact would occur.

Would the project result in the 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?

Construction and operation of the Proposed Project would not discharge large volumes of wastewater to a wastewater treatment facility that would exceed its capacity. Sewer service is not currently available at the Proposed Substation site. A portable chemical unit (portable restroom) would be placed within the substation perimeter wall for use during construction of the Proposed Project, and maintained by an outside service company. Therefore, wastewater would not be discharged during construction of the Proposed Substation site. Similarly, wastewater would not be discharged to the sewer system during construction of the Proposed Distribution Getaways, the Proposed Subtransmission Source Line Routes or the Proposed Telecommunication Facilities.

During Proposed Project operation, a portable chemical unit (portable restroom, not connected to local sewer and wastewater treatment system) would be placed within the Proposed Substation perimeter wall for use by SCE personnel and maintenance contractors. Since it would not be connected to the local sewer and wastewater treatment

system, wastewater would not be discharged. If, at the time of final engineering, both sewer and water connections become available, a standalone prefabricated permanent restroom may be installed. Discharge of wastewater from this restroom would be minimal, since personnel would generally only be on site three to four times per month, as the Proposed Substation would be unattended and remotely operated. Therefore, construction and operation of the Proposed Project would have no impact to wastewater treatment providers in the area.

Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Construction of the Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. The Proposed Project includes the removal and disposal of treated wood poles, and these wood poles would be returned to the staging areas for the Proposed Project and, depending on the condition of each pole, would be reused, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of an RWQCB-certified municipal landfill.

Operation of the Proposed Project would consist of routine maintenance and emergency repair. These activities are not expected to generate solid waste subject to federal, state, or local statutes or regulations related to solid waste. As a result, no impact to federal, state, and local statues and regulations related to solid waste would occur.

Construction Impacts

Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The use of water for dust suppression, clean up, drinking and hand washing during construction of the Proposed Project would be minimal, most likely brought to the construction sites by water trucks, and would not be in volumes that would affect water supplies. Restroom facilities for the Proposed Project would be portable and would not require a connection to the local water supply system. Construction of the Proposed Project would have a less than significant impact to the water supply in the area.

Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction of the Proposed Project would result in the generation of various waste materials, many of which can likely be recycled and salvaged. Waste items and materials would be collected by construction crews and separated into roll-off boxes at the materials staging areas. All waste materials that are not recyclable would be categorized by SCE in order to assure appropriate final disposal. Non-hazardous waste would be transported to local waste management facilities, and, if any hazardous waste is identified for disposal (e.g., potentially the removed wood poles), it would be disposed of in a Class I hazardous waste landfill or in the lined-portion of an RWQCB-certified municipal landfill, as appropriate. Hazardous liquid materials, such as mineral oil, would be subject to the developed Spill Prevention and Control Countermeasures Plan (SPCC), which

incorporates features such as trenches or berms to contain spills, should they occur. Soil excavated for the Proposed Project would either be used as fill or disposed of off-site at an appropriately licensed facility.

Although there would be waste generated from construction activities that would be sent to landfills in the area, the amount is not anticipated to be large enough to affect the permitted capacity of a landfill. The Proposed Project would be served by a landfill with sufficient capacity to accommodate the project's solid waste disposal needs. Currently, the Mid-Valley landfill, which is the landfill closest to the Proposed Substation site, possesses over 66 percent of available remaining capacity. Impacts related to landfill capacity would be less than significant.

Operation Impacts

Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The use of water for landscape irrigation during operation would be minimal, as drought tolerant plants would likely be used; therefore, irrigation water use would not be in volumes that would affect water supplies. At this time, it is anticipated that restroom facilities for the Proposed Project, both during construction and operation, would be portable and would not require connection to the local water supply system. If, at the time of final engineering, both sewer and water connections become available, a standalone prefabricated permanent restroom may be installed. Personnel would be on site occasionally for routine maintenance and emergency repair purposes during operation of the Proposed Substation, therefore water use for a restroom would be minimal. Operation of the Proposed Project would have a less than significant impact to the water supply in the area.

Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Operation of the Proposed Project would consist of routine maintenance and emergency repair of the facilities, and these activities would not generate waste in an amount that would affect the permitted capacity of landfills in the area. The Proposed Project would be served by a landfill with sufficient capacity to accommodate the project's solid waste disposal needs. Currently, the Mid-Valley landfill, which is the landfill closest to the Proposed Substation site, possesses over 66 percent of available remaining capacity. Impacts related to landfill capacity would be less than significant.

4.17.5 Alternative Substation Site

The Alternative Substation site has a similar setting to that of the Proposed Substation site, and is similar in scope. As a result, impacts to utilities and service systems would be similar to those of the Proposed Substation site. Impacts would be less than significant.

4.17.6 Alternative Subtransmission Source Line Routes

The Alternative Subtransmission Source Line Routes have similar settings as the Proposed Subtransmission Source Line Routes and are similar in scope. As a result, impacts to utilities and service systems would be similar to those of the Proposed Subtransmission Source Line Routes. Impacts would be less than significant.

4.17.7 References

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San Bernardino Valley Municipal Water District (SBVMWD). 2010. SBVMWD webpage. [online] http://www.sbvmwd.com/about/ [cited July 2010].

5.0 COMPARISON OF ALTERNATIVES

This section compares the environmental impacts of the alternatives to the Proposed Project. The California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15126.6(d) require that an environmental impact analysis include sufficient information about each alternative to allow meaningful evaluation and comparison with the Proposed Project. The alternatives must also be capable of satisfying the Proposed Project objectives.

The Proposed Project objectives, developed in Section 1.3, Project Objectives, are as follows:

- Serving long-term projected electrical demand requirements in the Electrical Needs Area beginning in June 2014
- Maintaining system reliability within the Electrical Needs Area
- Improving system operational flexibility by providing the ability to transfer load between distribution lines and substations within the Electrical Needs Area
- Meeting the Project's need while minimizing environmental impacts
- Meeting the Project's need in a cost-effective manner
- Using existing right-of-way (ROW) to the extent feasible

These objectives were used to develop a range of reasonable alternatives to the Proposed Project, or to the location of the Proposed Project, which would feasibly attain most of the basic objectives.

5.1 Substation Site Evaluation Methodology

In order to meet the Proposed Project objectives, a Project Study Area (shown in Figure 1.1, Electrical Needs Area) was determined. The placement of a substation within this area would allow Southern California Edison Company (SCE) to increase transformer capacity in the Electrical Needs Area, as well as to transfer load between distribution circuits and the existing substations located near the Electrical Needs Area. A new substation operating within this area would maximize electrical benefits to serve the purpose and need for the Proposed Project.

The Project Study Area was developed using the following basic requirements:

- The substation should be in an area where existing and future electrical demand can be served within the Electrical Needs Area
- The substation should be located in an area where it would maximize operational flexibility with adjacent substations and circuits

After a review of potential sites in the Project Study Area, SCE selected two substation location alternatives and potential subtransmission source line routes that would connect the substation to the existing Alder 66/12-kilovolt (kV) Substation and Etiwanda 220/66-kV Substation. These alternatives are shown on Figure 2.1, Alternative Substation sites and Subtransmission Source Line Routes.

For more information about how the Proposed Project alternatives are developed, evaluated and selected, please refer to Section 2.1, Project Alternatives.

5.2 Alternatives Comparison Summary

General Order Number 131-D requires that an Application for a Permit to Construct include the "[r]easons for adoption of the power line route or substation location selected, including comparison with alternative routes or locations, including the advantages and disadvantages of each."

The Alternative Substation site and Alternative Subtransmission Source Line Routes have similar physical and locational characteristics with the Proposed Project. In most cases, construction and operation impacts of the alternative option would be identical or similar to those identified for the Proposed Project in Chapter 4 of this PEA. The Proposed Telecommunications Facilities are similar for both the proposed and alternative options and would be on the new subtransmission line poles and/or placed underground.

The main differences between the Proposed Project and the Alternative are related to the Alternative Substation site and Alternative Alder Subtransmission Source Line Route B, resulting in different impacts associated with aesthetics and noise. The Alternative Substation site would result in a slightly less noise impact than the Proposed Substation site, as noise-sensitive receptors[1] are located at a greater distance (see Section 4.12, Noise). However, the Alternative Alder Subtransmission Source Line Route B would pass through additional populated areas when compared to the Proposed Alder Subtransmission Source Line Route, which would cause a greater impact from noise compared to the Proposed Subtransmission Source Line Routes. In addition, the Alternative Alder Subtransmission Source Line Route B is approximately 1 mile longer than the Proposed Alder Subtransmission Source Line Route. As such, the Alternative Subtransmission Source Line Routes would result in a greater "visual footprint" than the Proposed Subtransmission Source Line Routes.

There would also be a difference between the Proposed Project and the Alternative with regard to archaeological resources. The Proposed Substation site would result in a less than significant impact to archaeological resources. This is due to the presence of one historic-era archaeological site at the Proposed Substation site. No historic or archaeological resources were identified on the Alternative Substation site; therefore there would be no impact to archaeological resources. One historic-era site was identified in the Alternative Alder Subtransmission Source Line Route B, and no historic or

[1] Noise-sensitive receptors include schools, hospitals, convalesent homes, long-term care facilities, mental care facilities, residential uses, places of worship, libraries, and passive recreation areas.

archaeological resources were identified in the Proposed Alder Subtransmission Source Line route. Therefore, there would be no impact to archaeological resources for the Proposed Alder Subtransmission Source Line route, and a less than significant impact to archaeological resources for the Alternative Alder Subtransmission Source Line Route B.

Impacts to air quality would be significant and unavoidable. The use of the Alternative Substation site and the Alternative Subtransmission Source Line Routes would not avoid the significant environmental impacts related to air quality associated with the Proposed Project.

Alternative to the Proposed Project

Alternative Substation Site

The Alternative Substation site is located on a 9.6-acre privately owned vacant parcel on the southeast corner of Casa Grande Avenue and Sierra Avenue in the City of Fontana. The Alternative Substation site is bounded by Casa Grande Avenue to the north, Sierra Avenue to the west, a vacant parcel owned by SCE to the south, and SCE's existing transmission ROW to the east. Casa Grande Avenue is a major east-to-west arterial through the cities of Fontana and Rialto. SCE would establish vehicular access to the Alternative Substation site from Sierra Avenue. The visual character of the Alternative Substation site is very similar to that of the Proposed Substation site. According to the City of Fontana General Plan (2003), the Alternative Substation site would have the same land use designation and zoning classification as the Proposed Substation site; Regional Mixed Use. Existing land uses designations in the Proposed Project Area are shown on Figure 4.10-1, General Plan Land Use Designations.

Construction and operation of the Alternative Substation site would result in incrementally fewer noise impacts at noise-sensitive receptors (residences) as compared to the Proposed Project, because the Alternative Substation site would be located at a slightly greater distance (approximately 800 feet) to sensitive receptors than the Proposed Substation site (approximately 500 feet). Therefore, construction and operation activities at the Alternative Substation site would be located at greater distances than the Proposed Substation site, which would increase noise attenuation. As with the Proposed Project, noise impacts associated with construction and operation activities would be less than significant.

Construction of the Alternative Substation site would result in direct impacts to 10 individuals of Plummer's mariposa lilly. Construction of the Alternative Substation site would impact 7.3 acres of disturbed Riversidian alluvial fan sage scrub, a California special status vegetation type. The impact to this species on a regional scale would be less than significant at the Alternative Substation site.

Construction at the Alternative Substation site would result in less of an impact to archaeological resources than the Proposed Substation site. This is due to the presence of one historic-era archaeological site, the Planter Site (P-36-021495), which has been determined to not be significant at the Proposed Substation site. Construction at the

Proposed Substation site would result in a less than significant impact to archaeological resources. Construction at the Alternative Substation site would result in no impact to archaeological resources.

Alternative Subtransmission Source Line Routes (Alternative Alder Subtransmission Source Line Route B and Proposed Etiwanda Subtransmission Source Line Route)

The Alder 66/12-kV Substation and Etiwanda 220/66-kV Substation are the nearest existing substations to the Alternative Substation site with sufficient capacity to serve as source-line substations for the Proposed Project. The Alternative Subtransmission Source Line Routes would include two subtransmission source lines to connect the new substation with both of these two existing substations: the Proposed Etiwanda Subtransmission Source Line Route, which is the same as the Proposed Project, and the Alternative Alder Subtransmission Source Line Route B, which varies from the Proposed Alder Subtransmission Source Line Route of the Proposed Project. Therefore, the first segment of the Alternative Subtransmission Source Line Routes would have the same land use designation and zoning classifications as the Proposed Etiwanda Subtransmission Source Line Route.

The Alternative Alder Subtransmission Source Line Route B would be located in the same cities as the Proposed Alder Subtransmission Source Line Route (the Cities of Fontana and Rialto). The Alternative Alder Subtransmission Source Line Route B would travel through the same land use designation and zoning classification in the City of Fontana as the Proposed Alder Subtransmission Source Line Route. In the City of Rialto, the Alternative Alder Subtransmission Source Line Route B would travel through some land use and zoning designations that are different from the Proposed Alder Subtransmission Source Line Route, but both the Proposed and Alternative Alder Subtransmission Source Line Routes would be consistent with the land use designations and zoning defined by the City of Rialto.

The primary difference between the two options is that the Alternative Alder Subtransmission Source Line Route is approximately 1 mile longer than the Proposed Alder Subtransmission Source Line Route and would include more source line poles, which would disturb an additional amount of land compared with the Proposed Subtransmission Source Line Routes. From a visual perspective, the Alternative Alder Subtransmission Source Line Route B would result in an overall larger area crossed by the Proposed Project's facilities. By comparison, the Proposed Alder Subtransmission Source Line Route of the Proposed Project provides a more direct route to the Proposed Substation site, and the facilities would be more narrowly dispersed, resulting in a smaller "visual footprint."

The Alternative Subtransmission Source Line Routes would pass through additional populated areas as compared to the Proposed Subtransmission Source Line Routes. A portion of the Alternative Alder Subtransmission Source Line Route B located along West Casa Grande Drive would pass within 80 feet of residences north of West Casa Grande Drive. Although impacts under this alternative would be less than significant as with the Proposed Project, the proximity of the Alternative Subtransmission Source Line

Routes to additional residences would cause a greater impact from noise compared to the Proposed Subtransmission Source Line Routes. However, noise impacts overall would not substantially increase with construction and operation of the Alternative Subtransmission Source Line Routes as compared to the Proposed Project, and the impact would remain less than significant.

Construction of the Alternative Alder Subtransmission Source Line Route would result in a greater impact to archaeological resources. This is due to the presence of one previously identified historic-era site that crosses the Alternative Alder Subtransmission Source Line Route B. Construction of the Alternative Alder Subtransmission Source Line Route B would result in a less than significant impact to archaeological resources. Construction of the Proposed Alder Subtransmission Source Line Route would result in no impact to archaeological resources.

Therefore, the Alternative Alder Subtransmission Source Line Route B is not preferable to the Proposed Alder Subtransmission Source Line Route, because it would have a larger "visual footprint," expose more residences to noise during construction, and result in a greater impact to archaeological resources.

Environmental Impacts

As described in Chapter 4, Environmental Impact Assessment, the Proposed Project would have significant impacts to air quality. All other impacts would be less than significant. The use of the Alternative Substation site and the Alternative Subtransmission Source Line Routes would not avoid the environmental impacts related to air quality associated with the Proposed Project.

Air Quality impacts would be similar to the Proposed Project because the Alternative Substation site and Alternative Subtransmission Source Line Routes are located nearby, in an area under the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and would be subject to the same regulations. Construction and operation of the Alternative Substation site would have similar impacts as the Proposed Substation site. Construction impacts would be potentially significant, and operational impacts would be less than significant. Construction and operation of the Alternative Subtransmission Source Line Routes would have similar impacts as the Proposed Subtransmission Source Line Routes. Construction impacts would be potentially significant, and operational impacts would be less than significant.

Table 5.1 Comparison of Alternatives

Resource Area	Proposed Project	Alternative Substation Site	Alternative Subtransmission Source Line Routes
	Impact Level		
Aesthetics	Less than significant.	Similar to the Proposed Project.	Slightly greater than the Proposed Project, as the Alternative Alder Subtransmission Source Line Route B would be 1 mile longer than the proposed route, resulting in a greater "visual footprint;" however, remains less than significant.
Agriculture and Forestry Resources	No Impact	Similar to the Proposed Project	Similar to the Proposed Project
Air Quality	Significant and unavoidable (construction).	Similar to the Proposed Project; significant and unavoidable (construction).	Similar to the Proposed Project; significant and unavoidable (construction).
Biological Resources	Less than significant	Similar to the Proposed Project	Similar to Proposed Project
Cultural Resources	Paleontological Resources: Less than significant impact with mitigation. Archaeological and Historical Resources: Less than significant impact for the Proposed Substation site. No impact for the Proposed Alder Source Line.	Paleontological Resources: Similar to the Proposed Project. Archaeological and Historical Resources: Less than the Proposed Project, as there would be no impact to archaeological resources.	Paleontological Resources: Similar to the Proposed Project. Archaeological and Historical Resources: Greater than the Proposed Project, as there would be a less than significant impact to archaeological resources.
Geology and Soils	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Greenhouse Gas Emissions	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.

Table 5.1 Comparison of Alternatives

Resource Area	Proposed Project	Alternative Substation Site	Alternative Subtransmission Source Line Routes
	Impact Level		
Hazards and Hazardous Materials	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Hydrology and Water Quality	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Land Use and Planning	No impact.	Similar to the Proposed Project.	Similar to the Proposed Project.
Mineral Resources	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Noise	Less than significant.	Slightly less than the Proposed Project, as sensitive receptors are located at a greater distance, but remain less than significant.	Slightly greater than the Proposed Project, as the Alternative Subtransmission Source Line Routes would pass through additional populated areas, but remain less than significant.
Population and Housing	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Public Services	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Recreation	No impact.	Similar to the Proposed Project.	Similar to the Proposed Project.
Transportation and Traffic	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.
Utilities and Service Systems	Less than significant.	Similar to the Proposed Project.	Similar to the Proposed Project.

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6.0 OTHER CEQA CONSIDERATIONS

6.1 Cumulative Impacts

The California Environmental Quality Act (CEQA) requires lead agencies to consider the cumulative impacts of proposals under their review. Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact "consists of an impact which is created as a result of the combination of the project evaluated in the Environmental Impact Report (EIR) together with other projects causing related impacts" (Section 15130(a)(1)). The cumulative impacts analysis "shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects" (Section 15130(b)(5)).

Section 15130(a)(3) also states that an environmental document may determine that a proposed project's contribution to a significant cumulative impact would be rendered less than cumulatively considerable, and therefore not significant, if a project is required to implement or fund its fair share of mitigation measure(s) designed to alleviate the cumulative impact.

In conducting a cumulative impacts analysis, impacts are referenced to the temporal span and spatial areas in which the project would cause impacts. Additionally, a discussion of cumulative impacts must include either: (1) a list of past, present, and reasonably foreseeable future projects, including, if necessary, those outside the lead agency's control; or (2) a local, regional or state-wide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency (Section 15130(b)(1)).

The cumulative impact analysis for the Proposed Project included a review of past, present, and reasonably foreseeable future projects within the vicinity of the Proposed Project. A polygon feature was generated that encompassed the Proposed Substation site, the Proposed Distribution Getaways, the Proposed Subtransmission Source Line Routes, the Proposed Telecommunication Facilities, and the Alternative Substation site and Alternative Subtransmission Source Line Routes. A 1-mile buffer zone from these Project features was used to compile a list of related projects. The related projects that fall within the study area are shown on Figure 6.1, Cumulative Projects in the Vicinity of the Proposed Project, and are listed in Table 6.1, Cumulative Projects in the Vicinity of the Proposed Project.

Table 6.1 Cumulative Projects in the Vicinity of the Proposed Project

Jurisdiction	Project Number	Type of Project	Status	Year
Unincorporated San Bernardino County	P201000027/RMC	Revision to an approved Conditional Use Permit (CUP) to expand a 7,200-square foot office/workshop bldg to 9,000 square foot on 1.96 acres	SUBMITTED	2010
Unincorporated San Bernardino County	P201000190/SPP	Site plan permit to add 3 panel antennas and 3 parabolic antennas to an existing electrical transmission tower and to add new equipment on existing racks within an existing equipment shelter on 592-square foot lease area	SUBMITTED	2010
Unincorporated San Bernardino County	P200900709/RMC	Revision to an approved CUP for an existing transload train facility to install temporary terminal silos on 37.95 acres	SUBMITTED	2009
City of Fontana	AMD 07-02	Amendment for 466 residential units	SUBMITTED	2007
City of Fontana	AMD 08-08, CUP 08-14	Proposed 12,000-square foot commercial center with mini-warehouse & RV storage	SUBMITTED	2008
City of Fontana	AMND 09-01	Proposed specific plan amendment for Westgate Specific Plan	SUBMITTED	2009
City of Fontana	AMD 09-07	Amendment for Citrus Heights North Specific Plan	SUBMITTED	2009
City of Fontana	AMD 09-10	Proposed Fontana Sports Park	SUBMITTED	2009
City of Fontana	CUP 06-20	CUP for 33,862-square foot religious facility.	APPROVED	2007
City of Fontana	CUP 07-05	CUP for go-kart track with arcade area and dining area	APPROVED	2007
City of Fontana	CUP 07-39	Planned Unit Development for 42 detached & 58 attached homes	APPROVED	2008
City of Fontana	CUP 09-03	Proposed 60-foot wireless telecommunication tower	SUBMITTED	2009
City of Fontana	PLG 08-01	Install 6 panel antennas on a 700-square foot portion of 101.5 acres	APPROVED	2008
City of Fontana	SPL 08-03	Monarch Hills Specific Plan	SUBMITTED	2008
City of Fontana	SPL 09-01	Specific plan amendment for Westgate Specific Plan	SUBMITTED	2009
City of Fontana	SPL 10-01	Specific plan amendment to existing Summit at Rosena Specific Plan	SUBMITTED	2010

Table 6.1 Cumulative Projects in the Vicinity of the Proposed Project

Jurisdiction	Project Number	Type of Project	Status	Year
City of Fontana	TPM 06-01	Tentative Parcel Map (TPM) for health club, two single-story buildings and 2-story office buildings	APPROVED	2007
City of Fontana	TPM 06-03	TPM for a three-lot subdivision for a restaurant/retail project	SUBMITTED	2006
City of Fontana	TPM 08-01	TPM to convert into 18 condominiums	APPROVED	2009
City of Fontana	TPM 08-02	TPM for a three-lot subdivision	SUBMITTED	2008
City of Fontana	TPM 08-03	TPM for a 55,000-square foot church and 2,600 parking spaces	SUBMITTED	2008
City of Fontana	TT 06-03	Tentative Tract Map (TTM) for 20 single-lots on east side of Hemlock	APPROVED	2006
City of Fontana	TT 06-17	TTM for one lot condominium map for 23 townhomes	APPROVED	2008
City of Fontana	TT 07-09	TTM for 140 detached condo project on 14.9 gross acres	SUBMITTED	2007
City of Fontana	TT 07-15	TTM for 114 single-family residential lots	APPROVED	2008
City of Fontana	TT 07-27	TTM for 42 detached and 58 attached homes	APPROVED	2008
City of Fontana	TT 08-01	TTM for condo map for 248 units	SUBMITTED	2008
City of Rancho Cucamonga	SUBTT18022	Tentative Tract Map to subdivide eight lots	SUBMITTED	2006
City of Rancho Cucamonga	SUBTPM18196	Tentative Parcel Map to subdivide three lots	APPROVED	2007
City of Rancho Cucamonga	SUBTT18466	Tentative Tract Map to subdivide 43 lots on 10.0 acres	APPROVED	2008
City of Rancho Cucamonga	DRC2005-00146	Conditional use permit for 4,244-square foot of commercial on 1 acre	APPROVED	2005
City of Rancho Cucamonga	DRC2004-00822	15 single-family detached homes on 5.02 acres	APPROVED	2005
City of Rancho Cucamonga	DRC2004-00688	Proposed 7,000-square foot Restaurant Joe's Crab Shack	APPROVED	2005
City of Rancho Cucamonga	DRC2004-00052	59 single-family residential (sfr) on 19 acres	APPROVED	2005
City of Rancho Cucamonga	DRC2004-00714	66 sfr on 19.8 acres of Etiwanda Specific Plan.	APPROVED	2005

Table 6.1 Cumulative Projects in the Vicinity of the Proposed Project

Jurisdiction	Project Number	Type of Project	Status	Year
City of Rancho Cucamonga	VICTORIA GARDENS	Request to construct 2 retail buildings, a 180,000-square foot outdoor recreational store with 10,000-square foot restaurant, a 5,326-square foot bank building, a 7,563-square foot multi-tenant retail building, a 5,600-square foot retail building, a 35,000-square foot retail housewares and furniture store, 31,400-square foot retail store, a 6,000-square foot restaurant, and a 7,658-square foot bank building	APPROVED	2007
City of Rancho Cucamonga	DRC2005-00438	22 sfr in conjunction with TT 1676, on 14.1 acres of the Etiwanda Specific Plan	APPROVED	2005
City of Rancho Cucamonga	DRC2004-00268	Develop 99 condominiums on 9.68 net acres	APPROVED	2005
City of Rancho Cucamonga	DRC2003-00100	156 multi-family dwelling units on 11.14 acres	APPROVED	2008
City of Rancho Cucamonga	DRC2006-00692L	Construct 36,154 square feet industrial bldg on 1.93 acres	APPROVED	2008
City of Rancho Cucamonga	DRC2007-00119	Construct 225 workforce apartments units on vacant property at 13233 Foothill Boulevard	APPROVED	2008
City of Rancho Cucamonga	DRC2005-00703L	Develop a 20,871-square foot industrial building on 4.58 acres	APPROVED	2008
City of Rancho Cucamonga	DRC2008-00143	50 sfr on 9.85 acres	APPROVED	2008
City of Rancho Cucamonga	DRC2007-00402	Retail commercial center with three buildings totaling 51,940 square feet on 4.67 acres in Foothill Boulevard Specific Plan	APPROVED	2009
City of Rancho Cucamonga	DRC2007-00440	Construct an operations and maintenance facility for Omnitrans Transit Agency on 29 acres	APPROVED	2009
City of Rancho Cucamonga	DRC2006-00397D	Development of 7,442-square foot church on 1.04 acres of Etiwanda Specific Plan	APPROVED	2010
City of Rialto	1770R	A request to construct a 31,705-square foot warehouse addition to existing manufacturing facility	APPLIED	2007
City of Rialto	1795R1	Development of a 5,064 square foot clearance outlet for Black & Decker	APPLIED	2009

Table 6.1 Cumulative Projects in the Vicinity of the Proposed Project

Jurisdiction	Project Number	Type of Project	Status	Year
City of Rialto	1927/1927R	A request to construct nine single-family residences	APPLIED	2007
City of Rialto	1934	Replace monopole w/ 62-foot monopine	APPLIED	2005
City of Rialto	1941	13,678-square foot office and 19,097-square foot maintenance shop	APPLIED	2005
City of Rialto	1946	Unmanned wireless communications facility	APPLIED	2005
City of Rialto	1948	Single-family residence (2-story)	APPLIED	2005
City of Rialto	1950	Wireless telecommunications mono pole at SCE substation	APPLIED	2005
City of Rialto	1957	Construction of industrial buildings for warehouse, manufacturing office	APPLIED	2005
City of Rialto	1958	Construction of 15 R-1A single-family residences	APPLIED	2005
City of Rialto	1965	Wireless telecommunications facility	APPLIED	2005
City of Rialto	1974	Construct six industrial buildings	APPLIED	2005
City of Rialto	1983	Construct one single-family residence	APPLIED	2006
City of Rialto	1995	Construct 20 single-family homes in the R-1A zone	APPLIED	2006
City of Rialto	2001	Construct new 14,635-square foot office building	APPLIED	2006
City of Rialto	2017	Request installation of a 55-foot high monopine wireless telecommunication facility	APPLIED	2006
City of Rialto	2028	Request to construct one single-family residence	APPLIED	2006
City of Rialto	2031	Request to construct a single-family residence of 3,428 square feet	APPLIED	2006
City of Rialto	2042	Request to construct six industrial buildings averaging 10 square feet each	APPLIED	2007
City of Rialto	2072	Proposed construction of two single-family residences	APPLIED	2007
City of Rialto	2074	Proposed construction of a 220,400 square foot industrial warehouse	APPLIED	2007

Table 6.1 Cumulative Projects in the Vicinity of the Proposed Project

Jurisdiction	Project Number	Type of Project	Status	Year
City of Rialto	2075	Proposed construction of one single-family residence in the R-1B zone	APPLIED	2007
City of Rialto	2080/2080R	Revised Precise Plan of Design (PPD) for construction of a 370,612-square foot warehouse	APPLIED	2008
City of Rialto	2081/2081R	Revised PPD for construction of a 366,596-square foot warehouse	APPLIED	2008
City of Rialto	2086	Outdoor storage of mobile mini containers	APPLIED	2007
City of Rialto	2100	Development of gas station, convenience market, car wash, and two restaurants with drive-through	APPLIED	2008
City of Rialto	2105	Construction of a truck parking facility	APPLIED	2008
City of Rialto	2107	Construction of a 13,117-square foot building for warehousing and manufacturing purposes	APPLIED	2008
City of Rialto	2112	Proposed UPS freight terminal with related office, maintenance, and fueling facilities	APPLIED	2008
City of Rialto	2113	Installation of water production well with pump house and block wall	APPLIED	2008
City of Rialto	2114	Installation of water production well with pump house and block wall	APPLIED	2008
City of Rialto	2119	A request to construct a 69-foot-tall wireless telecommunications facility disguised as a light standard at Birdsall Park	APPLIED	2008
City of Rialto	2120	An 8,560-square foot addition to an existing buildings	APPLIED	2008
City of Rialto	2125	Expansion of the west warehouse facility by 217,800 square feet and expansion of parking area	APPLIED	2008
City of Rialto	2127	Installation of a 63-foot-tall monopine at an existing SCE substation and an equipment enclosure surrounded by an 8-foot block wall	APPLIED	2009
City of Rialto	2135	Construction of a drinking water treatment system to conduct perchlorate removal demonstration	APPLIED	2009

Table 6.1 Cumulative Projects in the Vicinity of the Proposed Project

Jurisdiction	Project Number	Type of Project	Status	Year
City of Rialto	2136R	Addition of a 7,200-square foot industrial building and a 1,440-square foot modular office building	APPLIED	2010
City of Rialto	2137R	Addition of a 7,200-square foot industrial building and a 1,440-square foot modular office building	APPLIED	2010
City of Rialto	2146	Development of one 105,287-square foot warehouse and two 25,360-square foot multi-tenant industrial park buildings	APPLIED	2009
City of Rialto	795R	Proposed 17,155-square foot expansion of existing manufacturing facility	APPLIED	2010
Project-wide[1]	SCE	Alder-Declez 66-kilvolt (kV) bundle 5,500-foot of 1,750 underground cable 2010/2011	APPLIED	2010/2011
Project-wide[1]	SCE	Etiwanda-Alder-Randall 66-kV re-conductor & re-build three miles of 653 ACSR to 954 SAC from Etiwanda to Baseline Road	APPLIED	2012
Project-wide[1]	SCE	Relocate all California Steel lines from East Bus to West Bus at Etiwanda Substation	APPLIED	2014
Project-wide[1]	SCE	Form a new Etiwanda-Genamic 66-kV source line by re-configuring, splitting the existing line, re-conductoring and adding new underground at Etiwanda Substation	APPLIED	2014
Project-wide[1]	SCE	Add 1 new 280 megavolt amperes 220/66-kV transformer to Etiwanda 220/66-kV Substation	APPLIED	2014

Note:

[1] SCE projects listed above are not shown on Figure 6.1.

Sources:

Balneg, 2010; Berumen, 2010; County of San Bernardino, 2010; City of Fontana, 2010; City of Rancho Cucamonga, 2010a and 2010b; City of Rialto, 2010; Gibson, 2010; Gonzalez, 2010; Henderson, 2010; Srikrish, 2010.

The following sections discuss the cumulative impacts of each environmental resource category.

6.1.1 Aesthetics

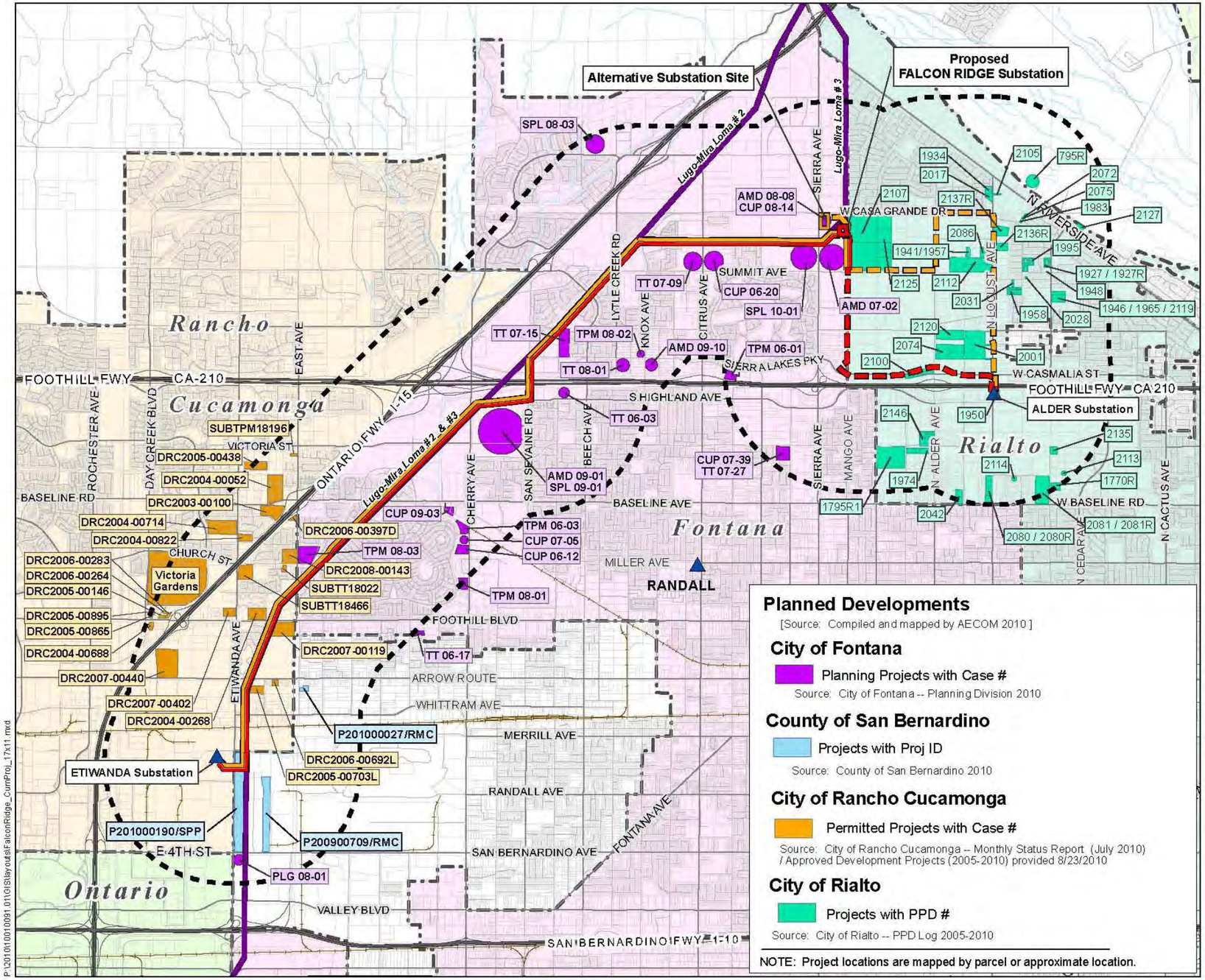
Construction and operation of the Proposed Project would result in less than significant impacts to visual resources. The Proposed Project would introduce new features (i.e., the

Proposed Substation and Subtransmission Source Line Routes) into the Proposed Project area that would result in different levels of change to existing views, depending on their proximity. When considered in conjunction with other potential development projects that are slated for the area in the immediate vicinity of the Proposed Project, it is evident that the visual character of the Project area would change over time if the Proposed Project and all other potential development projects are implemented. The Proposed Project area's existing visual character, distinguished by features associated with a suburban community development pattern, along with a large retail distribution center warehouse facility, and vacant lands, would not be substantially transformed by the Proposed Project. The viewshed is already characterized as being within a major electrical utility corridor, therefore the Proposed Project would not substantially change the visual character of the existing environment and would not substantially degrade the character of the viewshed even when considering new urban development pattern being planned for this area. Therefore, the cumulative visual impacts associated with the Proposed Project and related cumulative projects are considered less than significant.

6.1.2 Agriculture and Forestry Resources

The Proposed Project would not be located on land used for agricultural production, except for approximately 0.90 mile of the Proposed Etiwanda Subtransmission Source Line Route, which crosses land designated by the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) as Unique Farmland. There is currently no forest land located within the Proposed Project Area. The installation of new poles and the construction of new access roads associated with the Proposed Etiwanda Subtransmission Source Line Route would permanently disturb approximately 3.39 acres of Unique Farmland.

The 3.39 acres of Unique Farmland that would be converted to non-agricultural use under the Proposed Project has already been designated for urban development by the City of Fontana General Plan. The impacts of converting farmland to non-agricultural use which were previously analyzed in the General Plan Update Environmental Impact Report (EIR) (City of Fontana, 2003) (State Clearinghouse Number 2003031083) prepared for the City of Fontana. Implementation of the General Plan would result in a loss or conversion of 610 acres of farmland within the City of Fontana, of which 3.39 acres would be converted as part of the Proposed Project. The City of Fontana General Plan Update Environmental Impact Report (EIR) concluded that conversion of this agricultural land would result in a significant and unavoidable impact. The General Plan Update EIR also concluded that there are no feasible mitigation measures to minimize or reduce this significant impact. As a result, the City of Fontana adopted a Statement of Overriding Considerations for the loss of agricultural land. Therefore, the conversion of 3.39 acres of Unique Farmland to non-agricultural use resulting from the Proposed Project reaffirms the conclusion found in the City of Fontana General Plan Update EIR. The loss of the 3.39 acres of Unique Farmland was already evaluated in the City of Fontana General Plan Update EIR, therefore, it is not an impact considered peculiar to the Proposed Project. A new finding for the Proposed Project is not necessary (CEQA Guidelines Section 15183).



Falcon Ridge Substation Project

Figure 6.1

Cumulative Projects in the Vicinity of the Proposed Project

Project Components

Substation Site — Source Line Route and Telecommunication Facilities

- Proposed
- Alternative
- Common to Both
- 1-Mile Buffer Area

Existing Features

- Substation
- 500 kV Transmission Line
- Cities/Communities

Source: San Bernardino County GIS / SCE / AECOM 2010

N

0 0.5 1 2 Miles

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Therefore, the Proposed Project has no impact with respect to the conversion of 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.

The Proposed Project would not result in cumulatively considerable impacts to Agriculture and Forestry Resources.

6.1.3 Air Quality

Operation of the Proposed Project would have a less than significant impact to air quality. During operation of the Proposed Project, emissions would be limited to those produced from vehicles during occasional site visits for routine maintenance and emergency repair. These intermittent visits would not contribute significantly to cumulative air quality impacts during operation of the Proposed Project. Construction of the Proposed Project by itself may cause significant net increases in emissions of nitrogen oxides (NOx) and particulate matter smaller than 10 microns (PM_{10}). Therefore, construction of the Proposed Project along with other projects included in the cumulative impact analysis (refer to Table 6.1, Cumulative Projects in the Vicinity of the Proposed Project) that would be under construction or in operation at the same time as the Proposed Project is under construction may result in cumulatively considerable net increases in NOx and PM_{10} emissions. Compliance with California Code of Regulations, Title 13, Section 2449 (d)(3) for diesel engines and Rule 403 would reduce impacts, but the cumulative impact from these emissions is expected to remain significant.

6.1.4 Biological Resources

Construction and operation of the Proposed Project would result in a less than significant impact to biological resources. The Proposed Subtransmission Source Line Routes would impact four individuals of Plummer's mariposa lily and 47 individuals of Parry's spineflower; potential impacts to Plummer's mariposa lily and Parry's spineflower are adverse but less than significant because the loss of these individuals would not adversely affect the regional population of these species. No other special status species were observed during focused surveys. Based on preliminary engineering, a total of 8.15 acres of disturbed and undisturbed Riversidean sage scrub, Riversidean alluvial fan sage scrub and Annual Grassland/Disturbed Riversidean alluvial fan sage scrub may be permanently impacted by the Proposed Project. A final acreage determination will be made following final engineering. A mitigation plan will reduce this to a less than significant impact.

Other projects in the vicinity of the Proposed Project included in the cumulative impact analysis may have significant impacts to Plummer's mariposa lily, Parry's spineflower and Riversidean alluvial fan sage scrub. However, protective measures similar to those discussed for the Proposed Project would likely reduce impacts to less than significant for these projects. Furthermore, the incremental effect of the Proposed Project when combined with the impacts of other projects in the in the vicinity (as described in Table 6.1) would be less than significant and not cumulatively considerable.

6.1.5 Cultural Resources

Impacts to cultural resources as a result of the Proposed Project would be less than significant. Other projects in the vicinity of the Proposed Project included in the cumulative impact analysis may have significant impacts to cultural resources. However, protective measures similar to those discussed for the Proposed Project would likely reduce impacts to less than significant for these projects. Furthermore, the incremental effect of the Proposed Project when combined with the impacts of other projects in the in the vicinity (as described in Table 6.1) would be less than significant and not cumulatively considerable.

A majority of the project area is underlain by Holocene alluvium which has low paleotological sensitivity, however portions of the Proposed Etiwanda Source Line Route are underlain by late Pleistocene alluvial fan deposits. These deposits have the potential to be underlain by older Pleistocene alluvium which has high paleontological sensitivity.

Other projects in the vicinity of the Proposed Project included in the cumulative impact analysis may have significant impacts to paleontological resources. However, protective measures similar to those discussed for the Proposed Project would likely reduce impacts to less than significant for these projects. Furthermore, the incremental effect of the Proposed Project when combined with the impacts of other projects in the in the vicinity (as described in Table 6.1) would be less than significant and not cumulatively considerable.

6.1.6 Geology and Soils

Most of the impacts to geology and soils associated with the Proposed Project are site-specific geological hazards. When considering the effects that could be cumulatively considerable, such as the loss of topsoil, the potential impacts would be minimized by existing laws, regulations, and ordinances that require projects to obtain grading permits and implementation of Storm Water Pollution Prevention Plans (SWPPPs). The cumulative impacts to geology and soils would be less than significant.

6.1.7 Greenhouse Gas Emissions

Construction and operation of the Proposed Project would not result in significant impacts from greenhouse gas (GHG) emissions. As discussed in Section 4.7, Greenhouse Gas Emissions, the total of amortized construction emissions and annual operational GHG emissions associated with the Proposed Project would be 60 metric tons carbon dioxide-equivalent per year. This estimate is much lower than the 10,000 metric ton per year threshold that has been adopted by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board's 7,000 metric ton per year draft threshold. Although operation of the other projects in the cumulative impact analysis may result in an increase in GHG emissions, the Proposed Project's contribution to cumulative impacts would not be considerable, as the Proposed Project's GHG emissions would be

much less than the SCAQMD's significance threshold. Cumulative impacts from GHG emissions would be less than significant.

6.1.8 Hazards and Hazardous Materials

Construction and operation of the Proposed Project would not result in significant impacts to hazards or hazardous materials. In the long term, the developments evaluated in the cumulative impact analysis would decrease wildfire hazards by removing high-fire fuel. None of the developments in the cumulative impact analysis would contribute to the cumulative impacts of hazardous materials. Impacts would be less than significant.

6.1.9 Hydrology and Water Quality

Construction and operation of the Proposed Project would not result in significant impacts to hydrology and water quality. Incremental impacts of the Proposed Project when compared to impacts of other cumulative projects would be less than significant and not cumulatively considerable. The Proposed Project would not substantially interfere with existing drainage patterns, nor create additional stormwater runoff. Site design Best Management Practices (BMPs) would be installed within the enclosed Proposed Substation to reduce and control post-development runoff rates, and source control BMPs would be incorporated into the site plans to reduce the potential for stormwater runoff and pollution. Construction of the access roads for the Proposed Subtransmission Source Line Routes may cross ephemeral drainages or man-made drainage ditches. If this is the case, SCE may install temporary drainage structures to maintain the natural flow of surface stormwater runoff in the area for access during the rainy season, and will seek all necessary permits and certifications from the U.S. Army Corps of Engineers and Santa Ana Regional Water Quality Control Board. Additionally, implementation of project-specific grading permit(s) and a SWPPP would protect water quality. The cumulative impacts to hydrology and water quality would be less than significant.

6.1.10 Land Use and Planning

Construction and operation of the Proposed Project would not result in significant impacts to land use and planning. Projects listed in the cumulative impacts analysis would be permitted through local agencies, and any cumulative impacts to land use and planning would be evaluated and addressed by the local agencies during each project's CEQA process. Cumulative impacts to land use and planning would be less than significant.

6.1.11 Mineral Resources

Construction and operation of the Proposed Project would not result in significant impacts to mineral resources. Other developments planned in the area are not anticipated to significantly affect the exploration or extraction of mineral resources. Cumulative impacts to mineral resources would be less than significant.

6.1.12 Noise

Construction and operation of the Proposed Project would not result in significant impacts to noise. Other planned developments that are part of the cumulative impacts analysis may also generate noise during construction; however, the noise generated by the Proposed Project would occur intermittently over 12 months. The Proposed Project's contribution to the cumulative construction noise impact would not be significant. Operation of the other projects in the cumulative impacts analysis may result in an increase in ambient noise due to the increased traffic from the developments. However, the noise due to the operation of the Proposed Project would not cause a substantial permanent increase in ambient noise levels in the vicinity of the Proposed Project above levels existing without the Proposed Project. Therefore, the Proposed Project's contribution to cumulative noise during operation would be less than significant.

6.1.13 Population and Housing

Construction and operation of the Proposed Project would not result in significant impacts to population and housing. The Proposed Project would not include any new homes, so there would be no direct impact on population growth in the area. Construction workers are expected to be drawn from the existing local labor pool. The Proposed Project may require temporary accommodations for construction workers during construction, and this need is anticipated to be met by hotels and motels in the vicinity of the Proposed Project. The Proposed Substation would be unattended and remotely operated, requiring only occasional visits for routine maintenance and emergency repair. Therefore, no new housing would need to be built for temporary construction workers or workers during the operation period. Therefore, the Proposed Project would not have a cumulatively considerable effect to population and housing.

6.1.14 Public Services

Construction and operation of the Proposed Project would not result in significant impacts to public services. The Proposed Project would not require the expansion of fire and police protection, schools, libraries, hospitals, or other public facilities. Therefore, the Proposed Project would not have a cumulatively considerable effect to public services.

6.1.15 Recreation

Construction and operation of the Proposed Project would not result in significant impacts to recreation. The Proposed Project would not cause population growth that would result in the increased use of existing parks or require the construction of new recreation facilities. Therefore, the Proposed Project would not have a cumulatively considerable effect to recreation.

6.1.16 Transportation/Traffic

Construction and operation of the Proposed Project would not result in significant impacts to transportation. Construction of the Proposed Project would only require a maximum of approximately 26 construction workers at any single location, which would be much less than the capacity of the local roads. Additionally, the traffic generated during construction activities for the Proposed Project would occur for a short period of time (approximately 12 months). During operation of the Proposed Project, the Proposed Substation would be unattended and remotely operated, requiring only occasional visits for routine maintenance and emergency repair, and the frequency of trips for inspection of the Proposed Subtransmission Source Line Routes would be even less. Other developments that are part of the cumulative impacts analysis may generate traffic during construction or operation (or road/lane closures). However, the small traffic volumes generated during construction and operation of the Proposed Project would not cause cumulatively considerable traffic impacts.

6.1.17 Utilities and Service Systems

Construction and operation of the Proposed Project would not result in significant impacts to utilities and service systems. Any significant impacts to utilities and service systems due to the construction and operation of the other projects in the cumulative impact analysis would be addressed by the local agencies during each project's CEQA process. The Proposed Project would not have a cumulatively considerable effect to utilities and service systems.

6.2 Growth Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines states that environmental documents should "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment..."

A project could be considered to have growth inducing effects if it:

- Either directly or indirectly fosters economic or population growth or the construction of additional housing in the surrounding area
- Removes obstacles to population growth
- Requires the construction of new community facilities that could cause significant environmental effects
- Encourages and facilitates other activities that could significantly affect the environment, either individually or cumulatively

Would the project either directly or indirectly foster economic or population growth or the construction of additional housing in the surrounding area?

The Proposed Project could be considered growth-inducing if growth resulted from direct and indirect employment needed to construct, operate, and maintain the Proposed Project, and/or if growth resulted from the additional electrical power that would be transmitted by the Proposed Project. As discussed in Chapter 3, Project Description, the construction and operation of the Proposed Project would not substantially affect employment in the area. Construction would be performed by either SCE construction crews or contractors, and, in general, construction workers would be drawn from the local labor pool. If contract workers were employed, they would not cause growth in the area due to the short-term and temporary nature of their employment. The Proposed Project would be unattended; while it would require occasional electrical switching and routine maintenance, it would not require dedicated, full-time personnel.

The Proposed Project has been developed to meet forecasted electrical demands in the cities of Rancho Cucamonga, Fontana, and Rialto, and surrounding areas in unincorporated San Bernardino County. The Proposed Project is not designed to facilitate growth in the community, either directly or indirectly. It would accommodate growth in the area that is planned or approved by local land use authorities, but it would not by itself induce growth.

Would the project remove obstacles to population growth?

Obstacles to population growth in the region served by the Proposed Project are primarily due to feasibility of development, economic constraints, permitting, and other development restrictions and regulations administered by local agencies. The Proposed Project would not affect the feasibility of developing in the area, remove an obstacle to growth, or affect development restrictions administered by local agencies.

Would the project require the construction of new community facilities that could cause significant environmental effects?

The Proposed Project does not require the creation of any community facilities. However, the Proposed Project involves the construction of up to 7 miles of new access roads for the construction and maintenance of the Proposed Subtransmission Source Line Routes. The new access roads would not extend public services to an area presently not served by electricity. The Proposed Project is designed to respond to existing growth and demand trends.

Would the project encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively?

The demand for electricity is a result of, not a precursor to, development in the region. Although the Proposed Project would increase the reliability with which electricity is made available, the objective of the Proposed Project is not to provide a new source of electricity.

6.3 Significant Environmental Effects of the Proposed Project

The CEQA Guidelines (Section 15126.2) require a discussion of the overall significance of the environmental effects of the Proposed Project. This discussion is to distinguish between the direct and indirect effects of a project, and the short-term/long-term effects of a project. These potential significant environmental effects are summarized in Table 6.3, Potential Significant Environmental Effects.

Table 6.3 Potential Significant Environmental Effects

Resource	Description	Direct/Indirect	Short term/Long term
Air Quality			
Regional Air Quality	During construction, NOx and PM_{10}, emissions would exceed corresponding SCAQMD mass daily significance thresholds.	Direct	Short term: SCE would comply with California Code of Regulations, Title 13, Section 2423 and Rule 403 during construction to help reduce emissions.
South Coast Air Basin nonattainment for ozone and PM_{10}	Construction activities would result in a cumulatively considerable net increase in NOx and PM_{10} emissions.	Direct	Short term: SCE would comply with California Code of Regulations, Title 13, Section 2423 and Rule 403 during construction to help reduce emissions.

6.4 Mandatory Findings of Significance

The Mandatory Findings of Significance are as follows:

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?

As presented in Chapter 4, Environmental Impact Assessment, construction and operation of the Proposed Project would not degrade the quality of the environment. The effects to biological resources are discussed in Section 4.4.5, Biological Resources Impact Analysis. Construction and operation of the Proposed Project would not 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, or reduce the number or restrict the range of a rare or endangered plant or animal. The effects to cultural resources resulting from construction and operation of the Proposed Project are discussed in Section 4.5.5, Cultural Resources Impact Analysis. Construction and operation of the Proposed Project would not have significant unavoidable impacts to

cultural resources and would not eliminate important examples of any major periods of California history or prehistory

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)?

As discussed in Section 6.1, Cumulative Impacts, air quality could be affected by cumulative impacts.

Air Quality. Operation of the Proposed Project would have a less than significant impact to air quality. During operation of the Proposed Project, emissions would be limited to those produced from vehicles during occasional site visits for routine maintenance and emergency repair. These intermittent visits would not contribute significantly to cumulative air quality impacts during operation of the Proposed Project. Construction of the Proposed Project by itself may cause significant net increases in emissions of NOx and PM_{10}. Therefore, construction of the Proposed Project along with other projects included in the cumulative impact analysis (refer to Table 6.1, Cumulative Projects in the Vicinity of the Proposed Project) that would be under construction or in operation at the same time as the Proposed Project is under construction may result in cumulatively considerable net increases in NOx and PM_{10} emissions. Compliance with California Code of Regulations, Title 13, Section 2449 (d)(3) for diesel engines and Rule 403 would reduce impacts, but the cumulative impact from these emissions is expected to remain significant.

Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Construction and operation of the Proposed Project would not cause substantial adverse effects on human beings. On the contrary, access to a reliable and sufficient source of electricity would directly enhance the lives of human beings by supporting the wide range of individual lifestyles that depend upon the predictability of electrical service, and indirectly, by providing the region with reliable and sufficient electrical service to allow local decision makers flexibility as to what types of development could occur in the region.

6.5 References

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