Proponent's Environmental Assessment Estrella Substation and Paso Robles Area Reinforcement Project

Prepared for

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Pacific Gas and Electric Company

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ACRONYMS AND ABBREVIATIONS

3-D	three-dimensional
AB	Assembly Bill
afy	acre-feet per year
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
APLIC	Avian Power Line Interaction Committee
APM	Applicant-Proposed Measure
ASA	Archaeological Survey Area
ATCM	Airborne Toxic Control Measure
BACT	Best Available Control Technology
BESA	Built Environment Survey Area
BGEPA	Bald and Golden Eagle Protection Act
BLM	U.S. Bureau of Land Management
BMP	Best Management Practice
BSA	Biological Study Area
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAP	Clean Air Plan
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
Cal/OSHA	California Department of Industrial Relations Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CASGEM	California Department of Water Resources Statewide Groundwater Elevation Monitoring

CAISO	California Independent System Operator
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCIC	Central California Information Center
CCR	California Code of Regulations
CCRWQCB	Central Coast Regional Water Quality Control Board
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CGP	Construction General Permit
CH_4	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CHMIRS	California Hazardous Material Incident Report System
City	City of El Paso de Robles (agency), refer to actual city as El Paso de Robles
City General Plan	City of Paso Robles General Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNG	compressed natural gas
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	County of San Luis Obispo (agency), refer to actual county as San Luis Obispo County
County General	County of San Luis Obispo General Plan

Plan	
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CRTR	Cultural Resources Technical Report
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWHRS	California Wildlife Habitat Relationships System
dB	decibels
dBA	A-weighted decibels
DMG	California Division of Mines and Geology
DNL	day-night sound level
DOC	California Department of Conservation
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EDD	Employment Development Department
EDR	Environmental Data Resources Inc.
EMF	electric and magnetic fields
ESA	federal Endangered Species Act
ESCP	Erosion and Sedimentation Control Plan
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FICUN	Federal Interagency Committee on Urban Noise
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program

FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	Geographic Information System
GO	General Order
gpm	gallons per minute
GPS	Global Positioning System
GWP	global warming potential
H_2S	hydrogen sulfide
HAP	hazardous air pollutants
HCP	Habitat Conservation Plan
HDD	horizontal directional drilling
HEPA	high-efficiency particulate air
HMBP	Hazardous Materials Business Plan
HP	Historical and Architectural Overlay
HSAA	Hazardous Substance Account Act
HSC	Hazardous Waste Fee Health and Safety Code
HVAC	heating, ventilation, and air conditioning
HWCL	Hazardous Waste Control Law
ICS	Incident Command System
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
KOP	Key Observation Point
kV	kilovolt(s)
LCC	land capability classification
LDSP	light-duty steel pole
LHMP	Local Hazard Mitigation Plan

LMI	Labor Market Information
LNG	liquefied natural gas
LOS	Level of Service
LRA	Local Fire Responsibility Area
LST	lattice steel tower
LUO	Land Use Ordinance
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
mph	miles per hour
MRZ	Mineral Resource Zones
MSA	Metropolitan Statistical Area
MT	metric tons
MVA	Megavolt Amperes
MW	megawatts
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NASS	National Agricultural Statistics Service
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NCCP	Natural Communities Conservation Plan
NEET West	NextEra Energy Transmission West LLC
NEHRPA	National Earthquake Hazards Reduction Program Act
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health

NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NWS	National Weather Service
OES	Office of Emergency Services
OHWM	ordinary high water mark
OPGW	optical ground wire
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	lead
PEA	Proponent's Environmental Assessment
PFYC	Potential Fossil Yield Classification System
PG&E	Pacific Gas and Electric Company
PGA	peak ground acceleration
PM	particular matter
PM_{10}	respirable particulate matter (defined as particulate matter 10 microns in aerodynamic diameter)
$PM_{2.5}$	fine particulate matter (defined as particulate matter 2.5 microns in aerodynamic diameter)
PRC	Public Resources Code
PRGB	Paso Robles Groundwater Basin
PRTR	Paleontological Resources Technical Reports
(the) project	Estrella Substation and Paso Robles Area Reinforcement Project
PRWWTP	Paso Robles Wastewater Treatment Plant
PSA	Paleontological Survey Area
PSD	Prevention of Significant Deterioration

PSHA	Probabilistic Seismic Hazard Assessment
PTC	Permit to Construct
PUC	California Public Utilities Code
PVC	polyvinyl chloride
RCNM	Roadway Construction Noise Model
RCRA	Resources Conservation and Recovery Act of 1976
RE	Renewable Energy
ROG	reactive organic gases
ROW	right-of-way
RV	Recreational Vehicle
RWQCB	Regional Water Quality Control Board
SAP	Strategic Action Plan
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SCAQMD	South Coast Air Quality Management District
SF_6	sulfur hexafluoride
SHMA	Seismic Hazards Mapping Act of 1990
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigations, and Cleanups
SLOAPCD	San Luis Obispo County Air Pollution Control District
SLORTA	San Luis Obispo Regional Transit Authority
SMARA	California Surface Mining and Reclamation Act of 1975
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, Countermeasure Plan
SR-	State Route
SRA	State Fire Responsibility Area
SSC	Species of Special Concern
SWIS	Solid Waste Information System
SWMP	Stormwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan

SWRCB	State Water Resources Control Board
TCR	Tribal Cultural Resources
TMDL	Total Maximum Daily Load
TSP	tubular steel pole
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USA	Underground Service Alert
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UV	ultra-violet
VRP	visibility reducing particles
WEAP	Worker Environmental Awareness Program
WPA	Water Planning Area
WMZ	Watershed Management Zone
WRCC	Western Regional Climate Center

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1.0 PEA SUMMARY

1.1 INTRODUCTION

This Proponent's Environmental Assessment (PEA) for the Estrella Substation and Paso Robles Area Reinforcement Project (project) has been prepared by NextEra Energy Transmission West, LLC (NEET West) and the Pacific Gas and Electric Company (PG&E) as required by California Public Utility Commission (CPUC) General Order (G.O.) 131-D. The intent of the PEA is to provide information on the environmental impact of the project in accordance with the provisions of the California Environmental Quality Act (CEQA) and CPUC's Rules of Practice and Procedure. The PEA will be filed with NEET West's and PG&E's application for Permits to Construct (PTCs) for the project.

1.2 PROJECT COMPONENTS AND LOCATION

The project is comprised of two main components: Estrella Substation and the 70-kilovolt (kV) power line. Each of these main components has several subcomponents, which are described in Chapter 2, Project Description.

- **Estrella Substation:** Construct and operate a new 230 kV electrical substation and a new 70 kV substation located in an unincorporated portion of northern San Luis Obispo County. NEET West will prepare the entire substation site, and construct and operate the 230 kV portion of the substation. PG&E will construct and operate the 70 kV portion of the substation, which will include a location for future 70/21 kV distribution facilities.
- **70 kV Power Line Work:** Construct and operate approximately 7 miles of new overhead 70 kV double-circuit power line between Estrella Substation and an existing 70 kV power line, and reconductor approximately 3 miles of the existing 70 kV line from the point of connection to the existing Paso Robles Substation in the city of Paso Robles. PG&E will undertake this portion of the project.

Minor modifications within existing area substations and phase transposition of existing transmission line facilities will be required to accommodate the project.

The project is located within the northern portion of San Luis Obispo County, California, including portions of the city of Paso Robles. The nearest communities are San Miguel, which is approximately 9 miles to the northwest, and Templeton, which is approximately 8.5 miles to the southwest.

Land uses in the project area south of State Route (SR-) 46 are a mixture of intensive agriculture, vineyards, and rural residential development. North of SR-46 and within the city limits, land uses consist of light industrial development, urban and residential development, and wineries/vineyards.

1.3 PURPOSE, NEED, AND PROJECT OBJECTIVES

The California Independent System Operator Corporation (CAISO) approved this reliability project that will benefit electric customers who live and work in the northern San Luis Obispo County area. A project in-service date of May 2019 is needed in order to meet the basic project objectives listed below, thereby ensuring an adequate level of electric supply and transmission system reliability in the northern San Luis Obispo County area.

Currently, a loss of the Templeton-Paso Robles 70 kV Power Line or the Templeton 230/70 kV transformer results in thermal overloads and voltage concerns at Paso Robles Substation, putting approximately 60–70 megawatts (MW) of load at risk. Under the North American Electric Reliability Corporation (NERC) standards, either of these losses requires PG&E to activate the existing under voltage load shedding scheme (UVLS), a special system protection scheme designed to open circuit breakers that will disconnect customers during system disturbances to protect system equipment until the local transmission system has been stabilized. If either of these events occurs, approximately 17,000 households and businesses served by Paso Robles Substation will be without power under the UVLS, and another 3,000 customer connections served by San Miguel Substation will have to rely solely on a lengthy back feed from the Coalinga-San Miguel 70 kV Power Line for their power.

As soon as Estrella Substation is in service, these approximately 20,000 households and businesses will benefit from improved reliability because there will be another 230 kV source into the area. Looping the Paso Robles-San Miguel 70 kV Power Line through Estrella Substation will create additional power flow paths to serve San Miguel and Paso Robles substations. With the substation in place, and a loss of either the Templeton-Paso Robles 70 kV Power Line or the Templeton 230/70 kV transformer, customers served by the San Miguel and Paso Robles substations can be served from the new Estrella Substation.

Another benefit from the Estrella Substation is that it will help address the loss of both the Morro Bay-Templeton and Templeton-Gates 230 kV lines into Templeton Substation, which would result in thermal overloads and low voltages that could affect the entire area's distribution system – over 47,000 households and businesses in the Paso Robles Distribution Planning Area (DPA). By looping the Gates-Morro Bay 230 kV line through Estrella Substation, it will create another 230 kV power source from either Gates or Morro Bay substations. This source and the reverse power schemes at Templeton and Estrella substations will provide reinforcement to all 70 kV customers in the DPA – that is, all customers except those served from Templeton's 230/21 kV distribution transformers.

On page 89 of the 2013–2014 CAISO Transmission Plan, CAISO describes the transmission benefits of this project in more technical terms:

> [T]he project will mitigate the thermal overloads and voltage concerns identified in the Los Padres 70 kV system, specifically in the San Miguel, Paso Robles, Templeton, Atascadero, Cayucos and San Luis Obispo areas following a Category B contingency[1] due to loss of either the Templeton 230/70 kV No.1 Bank or the

[1] A Category B contingency would be the loss of one element – a transformer or transmission line. (A transmission line in this context is any line over 50 kV.) In 2015, NERC changed its terminology and this is now referred to as a P1 single contingency.

Paso Robles-Templeton 70 kV Line. These two single contingencies put approximately 60-70 MW of load at Paso Robles at risk by activating the Paso Robles UVLS scheme during summer peak conditions to alleviate the thermal and low voltage concerns. Also, Category C3 contingency[2] condition involving loss of Morro Bay-Templeton and Templeton-Gates 230kV lines results in thermal overloads and low voltages in the underlying 70 kV system. With the additional source from the Gates 230 kV system, the Estrella Substation Project will provide robust system reinforcement to the Paso Robles and Templeton 70 kV system operations.

The Estrella Project will also provide significant benefits to the distribution system in northern San Luis Obispo County. PG&E's 70 kV substation provides space for distribution facilities to be added within the foreseeable future, including one new 70/21 kV transformer and three new 21 kV distribution circuits that will interconnect with the existing distribution system. The existing distribution system currently serves customers from four distribution substations: Atascadero, Paso Robles, San Miguel and Templeton. Once the distribution equipment is installed at Estrella Substation, all customers within the Paso Robles DPA will benefit from reliability improvements because the Estrella distribution circuits will provide power to the local area, share load with existing circuits, and provide critical back feed support and redundancy to respond to real-time operational needs. This improved distribution reliability will benefit the over 47,000 households and businesses in the area. The distribution need analysis is provided in Appendix G.

The objectives of the Estrella Substation and Paso Robles Area Reinforcement Project are:

- **Reinforce Electrical Reliability by Implementing the CAISO-Approved Electrical Plan of Service.** Increase reliability and mitigate thermal overloads and voltage concerns in the area by having an additional 230 kV source of power that will increase service reliability in northern San Luis Obispo County, and maintain compliance with NERC reliability standards, as described in the *Estrella Substation Project Functional Specifications* issued by the CAISO in June 2014. The Estrella Project is also intended to allow NEET West and PG&E to meet their obligation to add the CAISO-approved project to the CAISO-controlled grid, as defined in the *Functional Specifications* and the Approved Project Sponsor Agreement.
- **Meet Expected Future Electric Distribution Demand.** Provide a location for future 21 kV distribution facilities with a 230/70 kV source near the anticipated growth areas in northern Paso Robles to efficiently add distribution capacity and improve service reliability when required in the Paso Robles DPA.
- **Balance Safety, Cost, and Environmental Impacts.** Locate, design, and build the project in a safe, cost-effective manner that will also minimize environmental impacts.

Improvements to the power grid will allow the project proponents to provide a highly reliable and stable electricity source that meets the evolving needs of the growing local economy, while reducing the likelihood of power outages, thus creating a more reliable power system.

[2] A Category C3 contingency would be the loss of two elements (transformers or transmission lines) that do not have a single point of failure. In 2015, NERC changed its terminology and this is now referred to as a P2 two or more contingency.

1.4 PEA CONTENTS

The Estrella Substation and Paso Robles Area Reinforcement Project PEA is divided into six sections as follows:

- **Chapter 1.0, PEA Summary.** This chapter provides a summary of the project components, project location, project need and objectives, PEA contents, major conclusions, areas of controversy and issues to be resolved, agency coordination and public outreach efforts, and the CPUC's PEA Checklist for Transmission Line and Substation Projects.
- **Chapter 2.0, Project Description.** This chapter provides a detailed description of the project for the environmental impact analysis. Project location and objectives, the existing and proposed system, project components, easement requirement, construction, and operation and maintenance are described for the substation and transmission facilities. The project description includes a list of the Applicant Proposed Measures (APMs) that the project proponents will implement to minimize environmental impacts.
- **Chapter 3.0, Environmental Impact Assessment.** This chapter begins with a summary followed by Sections 3.1 through 3.18, which present the environmental impact assessment for each resource area resulting from the project. Each section addresses applicable regulations, analysis methodology, baseline conditions, environmental impacts, and APMs to reduce or avoid significant effects. A checklist is provided at the beginning of each section to summarize the level of impact (i.e., No Impact, Less Than Significant Impact, Less Than Significant Impact with Mitigation Incorporated, and Potentially Significant Impact) to each resource area, according to CEQA significance criteria. The following resource areas are included in Chapter 3.0:
  - Section 3.1 Aesthetics
  - Section 3.2 Agriculture and Forest Resources
  - Section 3.3 Air Quality
  - Section 3.4 Biological Resources
  - Section 3.5 Cultural and Paleontological Resources
  - Section 3.6 Geology and Soils
  - Section 3.7 Greenhouse Gas Emissions
  - Section 3.8 Hazards and Hazardous Materials
  - Section 3.9 Hydrology and Water Quality
  - Section 3.10 Land Use and Planning
  - Section 3.11 Minerals
  - Section 3.12 Noise
  - Section 3.13 Population and Housing
  - Section 3.14 Public Services
  - Section 3.15 Recreation
  - Section 3.16 Transportation and Traffic
  - Section 3.17 Utilities and Service Systems

  - Section 3.18 Mandatory Findings of Significance and Cumulative Impacts

- **Chapter 4.0, Alternatives.** This section provides CPUC and interested stakeholders a description of the alternatives selection process and the alternatives that the project proponents considered and dismissed, including substation site and power line route alternatives.

Appendices include the following:

- Appendix A: Affected Properties (table listing properties within the planned right-of-way and within 300 feet of project)
- Appendix B: Electric and Magnetic Fields (general background information)
- Appendix C: Greenhouse Gas Calculations (calculations supporting the greenhouse gas emissions calculations discussed in Section 3.6)
- Appendix D: Native American Heritage Commission Correspondence
- Appendix E: Nesting Birds: Species Specific Buffers
- Appendix F: List of Preparers
- Appendix G: Estrella Distribution Need Analysis
- Appendix H: List of Properties Likely to Require Acquisition
- Appendix I: Key Observation Point Photos and Descriptions
- Appendix J: Air Quality Calculations
- Appendix K: Estrella Substation Baseline Noise Survey
- Appendix L: Estrella Substation Geotechnical Report
- Appendix M: Power Line Geotechnical Investigation
- Appendix N: Estrella Substation Phase I Environmental Site Assessment
- Appendix O: Power Line Environmental Data Resources, Inc. Report
- Appendix P: Substation Biological Resources Technical Report
- Appendix Q: Power Line Biological Resources Technical Report
- Appendix R: Substation Cultural and Paleontological Resources Technical Reports
- Appendix S: Power Line Cultural and Paleontological Resources Technical Reports

In compliance with the CPUC PEA Checklist, the project proponents have compiled Table 1-2, PEA Checklist Key, at the end of this chapter, which identifies the appropriate section of the PEA where each item in the CPUC Checklist has been addressed. The PEA list of preparers is provided in Appendix F. Confidential project information will be submitted separately to CPUC staff.

1.5 AGENCY COORDINATION AND PUBLIC OUTREACH EFFORTS

1.5.1 Agency Coordination

The project proponents met with several regulatory agencies in the early planning stages of the project to solicit input on project design and potential resource and land use issues in the vicinity of the project. Table 1-1, Summary of Agency Meetings Conducted to Date, summarizes the agency meetings and correspondence that took place in development of this PEA and the Permit to Construct (PTC) application. Coordination with these agencies will continue through the project's planning process and discretionary permits will be applied for where necessary.

No local discretionary (e.g., use) permits are required because CPUC has preemptive jurisdiction over the construction, maintenance, and operation of NEET West and PG&E facilities in California. CPUC's authority does not preempt special districts, such as Air Quality Management Districts, other state agencies, or the federal government. The project proponents will have to obtain all ministerial building and encroachment permits from local jurisdictions, and CPUC G.O. 131-D requires the project proponents to comply with local building, design, and safety standards to the greatest degree feasible to minimize project conflicts with local conditions. The project proponents will obtain permits, approvals, and licenses, and would participate in reviews and consultations as needed with federal, state, and local agencies.

Table 1-1. Summary of Agency Meetings Conducted to Date

Date of Consultation/Meetings	Agency
7/28/2015 *(multiple dates)*	County of San Luis Obispo
7/29/2015 *(multiple dates)*	City of El Paso de Robles
12/8/2015 *(multiple dates)*	California Department of Forestry and Fire Protection
4/28/2016	California Department of Transportation District 5
12/13/2016	San Luis Obispo County Air Pollution Control District
1/24/2017	California Department of Fish and Wildlife

1.5.2 Native American Heritage Commission and Tribal Outreach

The Native American Heritage Commission (NAHC) was contacted by the project proponents on March 29 and April 5, 2016, to request searches of their Sacred Lands File. Separate emailed letter responses from the NAHC were received on March 30 and April 6, 2016, stating that the results of the Sacred Lands Files search indicate that no Native American cultural resources are known in the immediate vicinity of the study area. NAHC correspondence is included in the PEA as Appendix D. The NAHC provided a list of two Native American tribes (Salinan Tribe of

Monterey and San Luis Obispo Counties and the Xolon Salinan Tribe) who may have knowledge of cultural resources in the study area not documented in the Sacred Lands Files. On June 27, 2016, project proponents sent letters to each of the Native American contacts listed by the NAHC, requesting any available information on resources in the study area and inviting general comments or questions pertaining to the project. Project proponents received responses from both tribal groups. An informal tribal outreach meeting was held on August 23, 2016, with representatives of project proponents meeting with both tribes separately.

1.5.3 Public and Community Outreach

Public outreach and communications are critical elements of the project proponents' planning process. The project proponents identified and reached out to key stakeholders in the vicinity of the project to solicit input and provide information about the project.

The project proponents began public outreach in July 2015 with government agencies, community organizations, community members and the local media to introduce the project, receive feedback, and identify potential next steps for outreach. In addition, the project proponents hosted a series of publicized open houses between December 2015 and June 2016 in which NEET West presented potential substation locations and PG&E presented proposed segmented power line route options. Feedback from the community assisted the project proponents with analyzing the potential substation sites and potential route options and determining the final proposed project.

1.6 PEA CHECKLIST

Table 1-2, PEA Checklist, identifies the appropriate section of the PEA where each item in the CPUC's *PEA Checklist for Transmission Line and Substation Projects* has been addressed. If an item was not addressed or not included in the PEA, justification is provided.

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
Cover Sheet		
Chapter 1: PEA Summary		
1.	The major conclusions of the PEA.	3.0
2.	Any areas of controversy.	Not applicable
3.	Any major issues that must be resolved including the choice among reasonably feasible alternatives and mitigation measures, if any.	Not applicable

[3] Chapters and section titles under "CPUC Requirement" refer to the October 2008 CPUC Working Draft PEA Checklist structure. Corresponding project information may be found in various PEA sections, figures, or tables, as shown in Table 1-2.

Table 1-2. PEA Checklist Key

CPUC Requirement[3]		PEA Section, Figure, or Table Number
4.	Description of inter-agency coordination, if any.	1.5
5.	Description of public outreach efforts, if any.	1.5
Chapter 2: Project Purpose and Need and Objectives ***[Note: This information is included in Section 1.3, Purpose and Need and Project Objectives, above.]***		
2.1 Overview		
Explanation of the objective(s) and/or Purpose and Need for implementing the Proposed Project.		1.3, 2.2
2.2 Project Objectives		
Analysis of the reason why attainment of these objectives is necessary or desirable. Such analysis must be sufficiently detailed to inform the Commission in its independent formulation of project objectives which will aid any appropriate CEQA alternatives screening process.		2.2
Chapter 3: Project Description		
3.1 Project Location		
1.	Geographical Location: County, City (provide project location map(s)).	2.5, Figure 2-3, Figure 2-4
2.	General Description of Land Uses within the project site (e.g., residential, commercial, agricultural, recreation, traverses vineyards, farms, open space, number of stream crossings, etc.).	2.5
3.	Describe if the Proposed Project is located within an existing property owned by the Applicant, traverses existing rights of way (ROW) or requires new ROW. Give the approximate area of the property or the length of the project that is in an existing ROW or which requires new ROWs.	2.7
3.2 Existing Transmission System		
1.	Describe the local system to which the Proposed Project relates; include all relevant information about substations, transmission lines, and distribution circuits. ***Note: regional system maps would remain confidential for security reasons.***	2.3
2.	Provide a schematic diagram and map of the existing system.	Figure 2-1
3.	Provide a schematic diagram that illustrates the system as it would be configured with implementation of the Proposed Project.	Figure 2-2
3.3 Project Objectives		
(Can refer to Chapter 2, Project Purpose and Need, if already described there.)		1.3, 2.2

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
3.4 Proposed Project		
1.	Describe whole of the Proposed Project. Is it an upgrade, a new line, new substations, etc.?	2.1, 2.6
2.	Describe how the Proposed Project fits into the Regional system. Does it create a loop for reliability, etc.?	2.3, 2.4
3.	Describe all reasonably foreseeable future phases, or other reasonably foreseeable consequences of the Proposed Project.	2.4
4.	Provide capacity increase in MW. If the project does not increase capacity, state it.	The Proposed Project will not result in a MW capacity increase.
5.	Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.	GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
3.5 Project Components		
3.5.1 Transmission Line		
1.	What type of line exists and what type of line is proposed (e.g., single-circuit, double-circuit, upgrade 69 kV to 115 kV).	2.1, 2.5.2, 2.6.2
2.	Identify the length of the upgraded alignment, the new alignment, etc.	2.5.2
3.	Would construction require one-for-one pole replacement, new poles, steel poles, etc.?	2.6.2
4.	Describe what would occur to other lines and utilities that may be collocated on the poles to be replaced (e.g., distribution, communication, etc.).	2.6.2
3.5.2 Poles/Towers		
1.	Provide the following information for each pole/tower that would be installed and for each pole/tower that would be removed:	

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
	Unique ID number to match GIS database information.	GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
	Structure diagram and, if available, photos of existing structure. Preliminary diagram or "typical" drawings and, if possible, photos of proposed structure. Also provide a written description of the most common types of structures and their use (e.g., Tangent poles would be used when the run of poles continues in a straight line, etc.). Describe if the pole/tower design meets raptor safety requirements.	2.6.2, 2.8.6, Figure 2-11, Table 2-1, Table 2-6
	Type of pole (e.g., wood, steel, etc.) or tower (e.g., self- supporting lattice).	Table 2-1, Table 2-5, 2.6.2
	For poles, provide "typical" drawings with approximate diameter at the base and the tip; for towers, estimate the width at base and top.	Figure 2-11, Table 2-6
	Identify typical total pole lengths, the approximate length to be embedded, and the approximate length that would be above ground surface; for towers, identify the approximate height above ground surface and approximate base footprint area.	2.6.2, 2.8.6.2, Table 2-1, Table 2-5, Table 2-6
2.	Describe any specialty poles or towers; note where they would be used (e.g., angle structures, heavy angle lattice towers, stub guys); make sure to note if any guying would likely be required across a road.	Table 2-1, Table 2-5, 2.6.2.2, 2.8.6
3.	If the project includes pole-for-pole replacement, describe the approximate location of where the new poles would be installed relative to the existing alignment.	2.6.2.2
4.	Describe any special pole types (e.g., poles that require foundations, transition towers, switch towers, microwave towers, etc.) and any special features.	2.6.2
3.5.3 Conductor Cable		
3.5.3.1 Above-Ground Installation		
1.	Describe the type of line to be installed on the poles/tower (e.g., single circuit with distribution, double circuit, etc.).	2.1, 2.6
2.	Describe the number of conductors required to be installed on the poles or tower and how many on each side including applicable engineering design standards.	2.6.1.3, 2.6.2.1, 2.6.2.2

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
3.	Provide the size and type of conductor (e.g., ACSR, non-specular, etc.) and insulator configuration.	2.6.2
4.	Provide the approximate distance from the ground to the lowest conductor and the approximate distance between the conductors (i.e., both horizontally and vertically) Provide specific information at highways, rivers, or special crossings.	2.6.2
5.	Provide the approximate span lengths between poles or towers, note where different if distribution is present or not if relevant.	2.6.2
6.	Describe if other infrastructure would likely be collocated with the conductor (e.g., fiber optics, etc); if so, provide conduit diameter of other infrastructure.	2.6.2
3.5.3.2 Below-Ground Installation		
1.	Describe the type of line to be installed (e.g., single circuit cross- linked polyethylene-insulated solid-dielectric, copper-conductor cables).	2.6.1, 2.8.5.6
2.	Describe the type of casing the cable would be installed in (e.g., concrete-encased duct bank system); provide the dimensions of the casing.	2.8.5.6
3.	Provide an engineering 'typical' drawing of the duct bank and describe what types of infrastructure would likely be installed within the duct bank (e.g., transmission, fiber optics, etc.).	Figure 2-12
3.5.4 Substations		
1.	Provide "typical" Plan and Profile views of the proposed substation and the existing substation if applicable.	Figures 2-4 through 2-10
2.	Describe the types of equipment that would be temporarily or permanently installed and provide details as to what the function/use of said equipment would be. Include information such as, but not limited to: mobile substations, transformers, capacitors, and new lighting.	2.6.1, Table 2-1
3.	Provide the approximate or "typical" dimensions (width and height) of new structures including engineering and design standards that apply.	2.6.1, Table 2-1, Figure 2-11
4.	Describe the extent of the Proposed Project. Would it occur within the existing fence line, existing property line or would either need to be expanded?	2.5.1, 2.6.1
5.	Describe the electrical need area served by the distribution substation.	2.2, 2.4
3.6 Right-of-Way Requirements		
1.	Describe the ROW location, ownership, and width. Would existing ROW be used or would new ROW be required?	2.7
2.	If new ROW is required, describe how it would be acquired and approximately how much would be required (length and width).	2.7
3.	List properties likely to require acquisition.	Appendix H

Table 1-2. PEA Checklist Key

CPUC Requirement[3]		PEA Section, Figure, or Table Number
3.7 Construction		
3.7.1 For All Projects		
3.7.1.1 Staging Areas		
1.	Where would the main staging area(s) likely be located?	2.8.1.1
2.	Approximately how large would the main staging area(s) be?	2.8.1, Table 2-3
3.	Describe any site preparation required, if known, or generally describe what might be required (i.e., vegetation removal, new access road, installation of rock base, etc.).	2.8.1, Table 2-3
4.	Describe what the staging area would be used for (i.e., material and equipment storage, field office, reporting location for workers, parking area for vehicles and equipment, etc.).	2.8.1.1
5.	Describe how the staging area would be secured, would a fence be installed? If so, describe the type and extent of the fencing.	2.8.1.1
6.	Describe how power to the site would be provided if required (i.e., tap into existing distribution, use of diesel generators, etc.).	2.8.1.1
7.	Describe any grading activities and/or slope stabilization issues.	2.8.1.1
3.7.1.2 Work Areas		
1.	Describe known work areas that may be required for specific construction activities (i.e., pole assembly, hill side construction, etc.).	2.8.1
2.	For each known work areas, provide the area required (include length and width) and describe the types of activities that would be performed.	2.8.1, Table 2-2, 2-3
3.	Identify the approximate location of known work areas in the GIS database.	GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
4.	How would the work areas likely be accessed (e.g., construction vehicles, walk in, helicopter, etc.)?	2.8.2

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
5.	If any site preparation is likely required, generally describe what and how it would be accomplished.	2.8, Table 2-2
6.	Describe any grading activities and/or slope stabilization issues.	2.8, Table 2.4
7.	Based on the information provided, describe how the site would be restored.	2.8.4
3.7.1.3 Access Roads and/or Spur Roads		
1.	Describe the types of roads that would be used and or would need to be created to implement the Proposed Project. Road types may include, but are not limited to: new permanent road; new temporary road; existing road that would have permanent improvements; existing road that would have temporary improvements, existing paved road; existing dirt/gravel road, and overland access.	2.8.2, Table 2-4
2.	For road types that require preparation, describe the methods and equipment that would be used.	2.8.2
3.	Identify approximate location of all access roads (by type) in the GIS database.	GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
4.	Describe any grading activities and/or slope stabilization issues. See table in 2008 CPUC Working Draft PEA Checklist as an example of information required. Road types may include, but are not limited to: new permanent road; new temporary road; existing road that would have permanent improvements; existing road that would have temporary improvements, existing paved road; existing dirt/gravel road, and overland access	2.8.2, Table 2-4

Table 1-2. PEA Checklist Key

CPUC Requirement[3]		PEA Section, Figure, or Table Number
3.7.1.4 Helicopter Access		
1.	Identify which proposed poles/towers would be removed and/or installed using a helicopter.	2.8.2.3 GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
2.	If different types of helicopters are to be used, describe each type (e.g., light, heavy or sky crane) and what activities they will be used for.	2.8.2.3, Table 2-7
3.	Provide information as to where the helicopters would be staged, where they would refuel, where they would land within the Project site.	2.8.2.3
4.	Describe any BMPs that would be employed to avoid impacts caused by use of helicopters, for example: air quality and noise considerations.	2.8.2.3, 3.16.4
5.	Describe flight paths, payloads, hours of operations for known locations and work types.	2.8.2.3
3.7.1.5 Vegetation Clearance		
1.	Describe what types of vegetation clearing may be required (e.g., tree removal, brush removal, flammable fuels removal) and why (e.g., to provide access, etc.).	2.8.3
2.	Identify the preliminary location and provide an approximate area of disturbance in the GIS database for each type of vegetation removal.	GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
3.	Describe how each type of vegetation removal would be accomplished.	2.8.3

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
4.	For removal of trees, distinguish between tree trimming as required under GO-95D and tree removal.	2.8.3
5.	Describe the types and approximate number and size of trees that may need to be removed.	2.8.3, 3.4.4
6.	Describe the type of equipment typically used.	2.8.3, 2.8.8, Table 2-7, Table 2-8
3.7.1.6 Erosion and Sediment Control and Pollution Prevention during Construction		
1.	Describe the areas of soil disturbance including estimated total areas, and associated terrain type and slope. List all known permits required. For project sites of less than one acre, outline the best management practices (BMPs) that would be implemented to manage surface runoff. Things to consider include, but are not limited to, the following: • Erosion and Sedimentation BMP's; • Vegetation Removal and Restoration; and/or, • Hazardous Waste and Spill Prevention Plans.	2.8.3, 2.8.4, 2.8.5.1, 2.10, 2.11, Table 2-1, Table 2-2, Table 2-3, Table 2-10
2.	Describe any grading activities and/or slope stabilization issues.	2.8, Table 2-3, Table 2-4
3.	Describe how construction waste (i.e., refuse, spoils, trash, oil, fuels, poles, pole structures, etc.) would be disposed.	2.8.3, 2.8.4, 2.8.5.1, 2.8.5.5, 2.8.5.6, 2.8.6.3
3.7.1.7 Cleanup and Post-Construction Restoration		
1.	Describe how cleanup and post-construction restoration would be performed (i.e., personnel, equipment, and methods). Things to consider include, but are not limited to, restoration of the following: • Natural drainage patterns; • Wetlands; • Vegetation, and • Other disturbed areas (i.e. staging areas, access roads, etc).	2.8.4
3.7.2 Transmission Line Construction (Above Ground)		
3.7.2.1 Pull and Tension Sites		
1.	Provide the general or average distance between pull and tension sites.	2.8.1.4
2.	Provide the area of pull and tension sites, include the estimated length and width.	2.8.1.4, Table 2-2

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
3.	According to the preliminary plan, how many pull and tension sites would be required, and where would they be located? Please provide the location information in GIS.	Table 2-2 GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
4.	What type of equipment would be required at these sites?	2.8.1.4, 2.8.8, Table 2-7, Table 2-8
5.	If conductor is being replaced, how would it be removed from the site?	2.8.6.5
3.7.2.2 Pole Installation Removal		
1.	Describe how the construction crews and their equipment would be transported to and from the pole site location. Provide vehicle type, number of vehicles, and estimated number of trips and hours of operations.	2.8.2, 2.8.8, Table 2-7, 2-8
Pole and Foundation Removal		
1.	Describe the process of how the poles and foundations would be removed.	2.8.6.2, 2.8.6.3
2.	Describe what happens to the hole that the pole was in (i.e., reused or backfilled)?	2.8.6.3
3.	If the hole is to be filled, what type of fill would be used, where would it come from?	2.8.6.3
4.	Describe any surface restoration that would occur at the pole site?	2.8.6.3, 2.8.4
5.	Describe how the poles would be removed from the site?	2.8.6.3
Top Removal		
If topping is required to remove a portion of an existing transmission pole that would now only carry distribution lines, please provide the following: • Describe the methodology to access and remove the tops of these poles. • Describe any special methods that would be required to top poles that may be difficult to access, etc.		Not applicable

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
Pole/Tower Installation		
1.	Describe the process of how the new poles/towers would be installed; specifically call out any special construction methods (e.g., helicopter installation) for specific locations or for different types of poles/towers.	2.8.6.2
2.	Describe the types of equipment and their use as related to pole/tower installation.	2.8.6.2, Table 2-7, Table 2-8
3.	Describe actions taken to maintain a safe work environment during construction (e.g., covering of holes/excavation pits, etc.).	2.8.1
4.	Describe what would be done with soil removed from a hole/foundation site.	2.8.6.2
5.	For any foundations required, provide description of construction method(s), approximate average depth and diameter of excavation, approximate volume of soil to be excavated, approximate volume of concrete or other backfill required, etc.	2.8.6.2, Table 2-6
6.	Describe briefly how poles/towers and associated hardware are assembled.	2.8.6
7.	Describe how the poles/towers and associated hardware would be delivered to the site; would they be assembled off-site and brought in or assembled on site?	2.8.6.2
8.	Provide a table of pole/tower installation metrics and associated disturbance area estimates as in 2008 CPUC Working Draft PEA Checklist 3.7.2.2	Table 2-1, Table 2-2, Table 2-6
3.7.2.3 Conductor/Cable Installation		
1.	Provide a process-based description of how new conductor/cable would be installed and how old conductor/cable would be removed, if applicable. Note, graphical representation of the general sequencing is helpful for the reader here.	2.8.6.5
2.	Generally describe the conductor/cable splicing process.	2.8.6.5
3.	If vaults are required, provide their dimensions and approximate location/spacing along the alignment.	Not Applicable
4.	Describe in what areas conductor/cable stringing/installation activities would occur.	2.8.1.4
5.	Describe any safety precautions or areas where special methodology would be required (e.g., crossing roadways, stream crossing).	2.8.1.3, 2.8.1.4, 2.8.6.1
3.7.3 Transmission Line Construction (Below Ground)		
3.7.3.1 Trenching		
1.	Describe the approximate dimensions of the trench (e.g., depth, width).	Not applicable
2.	Describe the methodology of making the trench (e.g., saw cutter to cut the pavement, back hoe to remove, etc.).	Not applicable

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
3.	Provide the total approximate cubic yardage of material to be removed from the trench, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Not applicable
4.	Provide off-site disposal location, if known, or describe possible option(s).	Not applicable
5.	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., the top two feet would be filled with thermal- select backfill).	Not applicable
6.	Describe if dewatering would be anticipated, if so, how the trench would be dewatered, what are the anticipated flows of the water, would there be treatment, and how would the water be disposed.	Not applicable
7.	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants that could be exposed as a result of trenching operations.	Not applicable
8.	If a pre-existing hazardous waste were encountered, describe the process of removal and disposal.	Not applicable
9.	Describe any standard BMPs that would be implemented.	Not applicable
3.7.3.2 Trenchless Techniques: Microtunnel, Bore and Jack, Horizontal Directional Drilling		
1.	Provide the approximate location of the sending and receiving pits.	Not applicable
2.	Provide the length, width, and depth of the sending and receiving pits.	Not applicable
3.	Describe the methodology of excavating and shoring the pits.	Not applicable
4.	Describe the methodology of the trenchless technique.	Not applicable
5.	Provide the total cubic yardage of material to be removed from the pits, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Not applicable
6.	Describe process for safe handling of drilling mud and bore lubricants.	Not applicable
7.	Describe process for detecting and avoiding “fracturing-out” during HDD operations.	Not applicable
8.	Describe process for avoiding contact between drilling mud/lubricants and stream beds.	Not applicable
9.	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., the top two feet would be filled with thermal- select backfill).	Not applicable
10.	Describe if dewatering would be anticipated, if so, how the pit would be dewatered, what are the anticipated flows of the water, would there be treatment, and how would the water be disposed.	Not applicable

Table 1-2. PEA Checklist Key

CPUC Requirement[3]		PEA Section, Figure, or Table Number
11.	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants.	Not applicable
12.	If a pre-existing hazardous waste were encountered, describe the process of removal and disposal.	Not applicable
13.	Describe any grading activities and/or slope stabilization issues.	Not applicable
14.	Describe any standard BMPs that would be implemented.	Not applicable
3.7.4 Substation Construction		
1.	Describe any earth moving activities that would be required; what type of activity and, if applicable, estimate cubic yards of materials to be reused and/or removed from the site for both site grading and foundation excavation.	2.8.5.1
2.	Provide a conceptual landscape plan in consultation with the municipality in which the substation is located.	Not applicable
3.	Describe any grading activities and/or slope stabilization issues.	2.8.5.1
4.	Describe possible relocation of commercial or residential property, if any.	Not applicable
3.7.5 Construction Workforce and Equipment		
1.	Provide the estimated number of construction crew members.	2.8.8 and Table 2-7
2.	Describe the crew deployment, would crews work concurrently (i.e., multiple crews at different sites); would they be phased, etc.	2.8.8, 2.8.9, Table 2-7, Table 2-9
3.	Describe the different types of activities to be undertaken during construction; the number of crew members for each activity i.e. trenching, grading, etc.; and number and types of equipment expected to be used for said activity. Include a written description of the activity. See example in 2008 CPUC Working Draft PEA Checklist 3.7.5.	2.8.8, 2.8.9, Table 2-9
4.	Provide a list of the types of equipment expected to be used during construction of the Proposed Project as well as a brief description of the use of the equipment. See example in 2008 CPUC Working Draft PEA Checklist 3.7.5.	2.8.8, Table 2-7, Table 2-8
3.7.6 Construction Schedule		
1.	Provide a Preliminary Project Construction Schedule; include contingencies for weather, wildlife closure periods, etc. Include Month Year, or Month Year to Month Year for each. See example in 2008 CPUC Working Draft PEA Checklist 3.7.6.	2.8.9, Table 2-9
3.8 Operation and Maintenance		
1.	Describe the general system monitoring and control (i.e., use of standard monitoring and protection equipment, use of circuit breakers and other line relay protection equipment, etc.).	2.9

Table 1-2. PEA Checklist Key

	CPUC Requirement[3]	PEA Section, Figure, or Table Number
2.	Describe the general maintenance program of the Proposed Project, include items such as: • Timing of the inspections (i.e., monthly, every July, as needed); • Type of inspection (i.e., aerial inspection, ground inspection); and • Description of how the inspection would be implemented. Things to consider, who/how many crew members; how would they access the site (walk to site, vehicle, ATV); would new access be required; would restoration be required, etc.	2.9
3.	If additional full time staff would be required for operation and/or maintenance, provide the number and for what purpose.	Not applicable
3.9 Applicant Proposed Measures		
1.	If there are measures that the Applicant would propose to be part of the Proposed Project, please include those measures and reference plans or implementation descriptions.	2.10
Chapter 4: Environmental Setting ***[Note: Environmental setting is combined with impact assessment in Chapter 3.]***		
4.1 Aesthetics		
1.	A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	3.1.3
	• Local environment (site-specific)	3.1.3
	• Regional environment	3.1.3.1
2.	A description of the regulatory environment/context	
	• Federal	3.1.2.1
	• State	3.1.2.1
	• Local	3.1.2.1
4.2 Agriculture and Forest Resources		
1.	A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
	• Local environment (site-specific)	3.2.3.2
	• Regional environment	3.2.3.1
2.	A description of the regulatory environment/context	

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
• Federal	3.2.2.1
• State	3.2.2.1
• Local	3.2.2.1
4.3 Air Quality/Greenhouse Gas	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.3.3.2 and 3.7.3
• Regional environment	3.3.3.1 and 3.7.3
2. A description of the regulatory environment/context	
• Federal	3.3.2.1 and 3.7.2.1
• State and Regional	3.3.2.1 and 3.7.2.1
• Local	3.3.2.1 and 3.7.2.1
4.4 Biological Resources	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.4.3.2
• Regional environment	3.4.3.1
2. A description of the regulatory environment/context	
• Federal	3.4.2.1
• State	3.4.2.1
• Local	3.4.2.1
4.5 Cultural Resources	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.5.3

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
• Regional environment	3.5.3
2. A description of the regulatory environment/context	
• Federal	3.5.2.1
• State	3.5.2.1
• Local	3.5.2.1
4.6 Geology, Soils, Minerals, and Paleontological Resources and Seismic Potential	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.5.3, 3.6.3, 3.11.3
• Regional environment	3.5.3, 3.6.3, 3.11.3
2. A description of the regulatory environment/context	
• Federal	3.5.2.1, 3.6.2.1, 3.11.2.1
• State	3.5.2.1, 3.6.2.1, 3.11.2.1
• Local	3.5.2.1, 3.6.2.1, 3.11.2.1
4.7 Hazards and Hazardous Materials	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.8.3
• Regional environment	3.8.3
2. A description of the regulatory environment/context	
• Federal	3.8.2.1
• State	3.8.2.1
• Local	3.8.2.1

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
4.8 Hydrology and Water Quality	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.9.3.2 through 3.9.3.5
• Regional environment	3.9.3.1
2. A description of the regulatory environment/context	
• Federal	3.9.2.1
• State	3.9.2.1
• Local	3.9.2.1
4.9 Land Use and Planning	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.10.3.2, 3.10.3.3
• Regional environment	3.10.3.1
2. A description of the regulatory environment/context	
• Federal	3.10.2.1
• State	3.10.2.1
• Local	3.10.2.1
4.10 Mineral Resources	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.11.3
• Regional environment	3.11.3
2. A description of the regulatory environment/context	
• Federal	3.11.2.1
• State	3.11.2.1

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
• Local	3.11.2.1
4.11 Noise	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.12.3
• Regional environment	3.12.3
2. A description of the regulatory environment/context	
• Federal	3.12.2.1
• State	3.12.2.1
• Local	3.12.2.1
4.12 Population and Housing	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.13.3
• Regional environment	3.13.3
2. A description of the regulatory environment/context	
• Federal	3.13.2.1
• State	3.13.2.1
• Local	3.13.2.1
4.13 Public Services	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.14.3
• Regional environment	3.14.3
2. A description of the regulatory environment/context	
• Federal	3.14.2.1
• State	3.14.2.1

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
• Local	3.14.2.1
4.14 Recreation	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.15.3.2
• Regional environment	3.15.3.1
2. A description of the regulatory environment/context	
• Federal	3.15.2.1
• State	3.15.2.1
• Local	3.15.2.1
4.15 Transportation and Traffic	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.16.3
• Regional environment	3.16.3
2. A description of the regulatory environment/context	
• Federal	3.16.2.1
• State	3.16.2.1
• Local	3.16.2.1
4.16 Utilities and Public Services	
1. A description of the physical environment in the vicinity of the project (e.g., topography, land use patterns, biological environment, etc.)	
• Local environment (site-specific)	3.17.3
• Regional environment	3.17.3
2. A description of the regulatory environment/context	
• Federal	3.17.2.1

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
• State	3.17.2.1
• Local	3.17.2.1
Chapter 5: Environmental Impact Assessment Summary ***[Note: Impact assessment is combined with Environmental Setting in Chapter 3.]***	
5.1 Aesthetics	
1. Provide visual simulations of prominent public view locations, including scenic highways to demonstrate the before and after project implementation. Additional simulations of affected private view locations are highly recommended.	3.1.4.3, Figures 3.1-6 through 3.1-21 Appendix I
5.2 Agricultural Resources	
1. Identify the types of agricultural resources affected.	3.2.4.3, Table 3.2-4, Table 3.2-8
5.3 Air Quality	
1. Provide supporting calculations / spreadsheets / technical reports that support emission estimates in the PEA.	Tables 3.3-8 through 3.3-11 Appendix J
2. Provide documentation of the location and types of sensitive receptors that could be impacted by the project (e.g., schools, hospitals, houses, etc.). Critical distances to receptors is dependent on type of construction activity.	3.3.4.3, 3.12.3.2, Table 3.12-6
3. Identify Project Green House Gas (GHG) emissions as follows:	
• Quantify GHG emissions from a business as usual snapshot. That is, what the GHG emissions will be from the proposed project if no mitigations were used	3.7.4.3, Table 3.7-3 Appendix C
• Quantify GHG emission reductions from every Applicant Proposed Measure that is implemented. Itemize quantifications and place in a table format	3.7.4.3 Appendix C
• Identify the net emissions of a project after mitigations have been applied. [Note: Impacts will be less than significant. No mitigation measures are required.]	3.7.4.3, Table 3.7-3
• Calculate and quantify GHG emissions (CO2equivalent) for the project including construction & operation.	3.7.4.3 Appendix C

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
• Calculate and quantify the GHG reduction based on reduction measures proposed for the project. [Note: Applicant proposed measures shown in Table 3.7-2 will be implemented. Impacts will be less than significant. No mitigation measures are required.]	3.7.4.3 Appendix C
• Proposed APMs to implement and follow to maximize GHG reductions. If sufficient, CPUC will accept them without adding further mitigation measures.	3.7.4.3, Table 3.7-2
• Discuss programs already in place to reduce GHG emissions on a system wide level. This includes Applicant's voluntary compliance with USEPA SF6 reduction program, reductions from energy efficiency, demand response, LTPP, et al.	3.7.4.3
5.4 Biological Resources	
In addition to an Impact Analysis: 1. Provide a copy of the Wetland Delineation and supporting documentation (i.e., data sheets). If verified, provide supporting documentation. Additionally, GIS data of the wetland features should be provided as well.	Appendix P and Q GIS Data For security reasons, GIS data with Critical Energy Infrastructure Information will be submitted confidentially although data layers may be used to prepare pdf maps for public use.
2. Provide a copy of special status surveys for wildlife, botanical and aquatic species, as applicable. Any GIS data documenting locations of special-status species should be provided.	Appendix P and Q GIS Data Per a License Agreement with CDFW, certain GIS data will be submitted confidentially. In addition, GIS data with Critical Energy Infrastructure Information will be submitted confidentially

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
5.5 Cultural Resources	
In addition to an Impact Analysis: 1. Cultural Resources Report documenting a cultural resources investigation of the Proposed Project. This report should include a literature search, pedestrian survey, and Native American consultation.	Appendix R and S Per Federal and California legal requirements, certain cultural, archaeological and paleontological information will be submitted confidentially
2. Provide a copy of the records found in the literature search.	Appendix R and S Per Federal and California legal requirements, certain cultural, archaeological and paleontological information will be submitted confidentially
3. Provide a copy of all letters and documentation of Native American consultation.	Appendix D, R, and S
5.6 Geology, Soils, and Seismic Potential	
In addition to an Impact Analysis: 1. Provide a copy of geotechnical investigation if completed, including known and potential geologic hazards such as ground shaking, subsidence, liquefaction, etc.	Appendix L and M
5.7 Hazards and Hazardous Materials	
In addition to an Impact Analysis, provide: 1. Environmental Data Resources Report.	Appendix N and O
2. Hazardous Substance Control and Emergency Response Plan.	Equivalent to be provided to the CPUC prior to construction.
3. Health and Safety Plan.	Equivalent to be provided to the CPUC prior to construction.

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
4. Worker Environmental Awareness Program (WEAP).	Equivalent to be provided to the CPUC prior to construction
5. Describe what chemicals would be used during construction and operation of the Proposed Project. For example: fuels, etc. for construction, naphthalene to treat wood poles before installation.	3.8.4.3, Table 3.8-4
5.8 Hydrology and Water Quality	
In addition to an Impact Analysis: 1. Describe impacts to groundwater quality including increased run-off due to construction of impermeable surfaces, etc.	3.9.4
2. Describe impacts to surface water quality including the potential for accelerated soil erosion, downstream sedimentation, and reduced surface water quality	3.9.4
5.9 Land Use and Planning	
In addition to an Impact Analysis: 1. Provide GIS data of all parcels within 300' of the Proposed Project with the following data: APN number, mailing address, and parcel's physical address.	GIS data for parcels is confidential and may not be shared per license agreement with ParcelQuest. Output of ParcelQuest search is found in Appendix A
5.10 Mineral Resources [Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.]	3.11
5.11 Noise	
In addition to an Impact Analysis: 1. Provide long term noise estimates for operational noise (e.g., corona discharge noise, and station sources such as substations, etc.).	3.12.1.1, 3.12.4.3, Table 3.12-12, Table 3.12-13

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
5.12 Population and Housing [Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.]	3.13
5.13 Public Services [Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.]	3.14, 3.15
5.15 Transportation and Traffic [Note: the traffic impact assessments should be based on likely or probable routes.]	
1. Discuss traffic impacts resulting from construction of the Proposed Project including ongoing maintenance operations.	3.16.4.3
2. Provide a preliminary description of the traffic management plan that would be implemented during construction of the Proposed Project.	3.16.4.2
5.16 Utilities and Service Systems	
1. Describe how treated wood poles would be disposed of after removal, if applicable.	2.8.6.3
5.17 Cumulative Analysis	
1. Provide a list of projects (i.e., past, present and reasonably foreseeable future projects) within the Project Area that the applicant is involved in.	3.18.3.2, Table 3.18-2
2. Provide a list of projects that have the potential to be proximate in space and time to the Proposed Project. Agencies to be contacted include but are not limited to: the local planning agency, Caltrans, etc.	3.18.3.3, Table 3.18-2
5.18 Growth-Inducing Impacts, If Significant	
1. Provide information on the Proposed Project's growth inducing impacts, if any. The information should include, but is not necessarily limited, to the following:	
• Any economic or population growth, in the surrounding environment that will directly or indirectly, result from the Proposed Project	Not applicable
• Any increase in population that could further tax existing community service facilities (i.e., schools, hospitals, fire, police etc.) that will directly or indirectly result from the Proposed Project.	Not applicable
• Any obstacles to population growth that the Proposed Project would remove	Not applicable
• Any other activities, directly or indirectly encouraged or facilitated by the Proposed Project that would cause population growth that could significantly affect the environment, either individually or cumulatively.	Not applicable

Table 1-2. PEA Checklist Key

CPUC Requirement[3]			PEA Section, Figure, or Table Number
Chapter 6: Detailed Discussion of Significant Impacts			
[Note: With implementation of APMs, all impacts will be less than significant. Therefore, the first section (6.1, Mitigation Measures Proposed to Minimize Significant Effects) is not required. NEET West and PG&E have provided an alternatives analysis to inform the CPUC of the site and route alternatives considered before arriving at the project. Alternatives are included to comply with GO 131-D and to provide background information for the public.]			
6.2 Description of Project Alternatives and Impact Analysis			
1.	Provide a summary of the alternatives considered that would meet most of the objectives of the Proposed Project and an explanation as to why they were not chosen as the Proposed Project.		4.3, 4.4
2.	Alternatives considered and described by the Applicant should include, as appropriate:		
	a.	System or facility alternatives	4.2
	b.	Route alternatives	4.4.1
	c.	Route variations	4.4
	d.	Alternative locations.	4.3
3.	A description of a "No Project Alternative" should be included.		4.2
4.	If significant environment effects are assessed, the discussion of alternatives shall include alternatives capable of substantially reducing or eliminating any said significant environmental effects, even if the alternative(s) substantially impede the attainment of the project objectives, and are more costly.		Not applicable
6.3 Growth-Inducing Impacts			
Information required to analyze the Proposed Project's effects on growth would vary depending on the type of project proposed. Generally, for transmission line projects the discussion would be fairly succinct and focus on the following:			
1.	Would the Proposed Project foster economic or population growth, either directly or indirectly, in the surrounding environment?		3.13.4.3
2.	Would the Proposed Project cause an increase in population that could further tax existing community service facilities (i.e., schools, hospitals, fire, police, etc.)?		3.13.4.3
3.	Would the Proposed Project remove obstacles to population growth?		3.13.4.3
4.	Would the Proposed Project encourage and facilitate other activities that would cause population growth that could significantly affect the environment, either individually or cumulatively?		3.13.4.3

Table 1-2. PEA Checklist Key

CPUC Requirement[3]	PEA Section, Figure, or Table Number
6.4 Applicant Proposed Measures to address GHG Emissions	
See the menu of suggested APM's in PEA Checklist Section 6.4 that applicants can consider. Applicants can and are encouraged to propose other GHG reducing mitigations. Priority is given to on-site and/or nearby mitigation measures. Off-site mitigation measures within California will be considered.	3.7.4.2, Table 3.7-2
Chapter 7: Other Process-Related Data Needs	
1. Excel spreadsheet that includes all parcels within 300 feet of any project component with the following data: APN number, owner mailing address, and parcels physical address. [Note: notice of all property owners within 300 feet is required under G.O. 131-D.]	Appendix A

2.0 PROJECT DESCRIPTION

This chapter describes the Estrella Substation and Paso Robles Area Reinforcement Project (project) objectives, location, components, easement requirements, construction methods, and operation and maintenance. It also includes the anticipated permits and approvals, and the applicant proposed measures (APMs) the project proponents have committed to in addition to the requirements stipulated in the project permits and applicable regulations to facilitate avoidance and/or minimization of potential adverse environmental impacts. This section has been prepared in accordance with the California Public Utilities Commission's (CPUC) *Proponent's Environmental Assessment Checklist* (CPUC 2008).

2.1 OVERVIEW

This Proponent's Environmental Assessment (PEA) evaluates the environmental impacts associated with construction, operation, and maintenance of the project, which is being proposed by NextEra Energy Transmission West LLC (NEET West) and Pacific Gas and Electric Company (PG&E), respectively, herein referred to as the "project proponents." The project includes the following components:

- **Estrella Substation:** Construct and operate a new 230 kilovolt (kV) electrical substation and a new 70 kV substation located in an unincorporated portion of northern San Luis Obispo County. NEET West will prepare the entire substation site and construct and operate the 230 kV portion of the substation. PG&E will construct and operate the 70 kV portion of the substation, which will include a location for future 70/21 kV distribution facilities.
- **70 kV Power Line Work:** Construct and operate approximately 7 miles of new overhead 70 kV double-circuit power line between Estrella Substation and an existing 70 kV power line, and reconductor approximately 3 miles of the existing 70 kV power line from the point of connection to the existing Paso Robles Substation in the city of Paso Robles. PG&E will undertake this portion of the project.

Minor modifications within existing area substations and rearrangement of existing transmission lines will be required to accommodate the project.

2.2 PROJECT OBJECTIVES

The objectives of the Estrella Substation and Paso Robles Area Reinforcement Project are:

- **Reinforce Electrical Reliability by Implementing the California Independent System Operator Corporation (CAISO)-Approved Electrical Plan of Service.** Increase reliability and mitigate thermal overloads and voltage concerns in the area by having an additional 230 kV source of power that will increase service reliability in northern San Luis Obispo County, and maintain compliance with North American Electric Reliability Corporation (NERC) reliability standards, as described in the *Estrella Substation Project Functional Specifications* issued by CAISO in June 2014. The Estrella Project is also intended to allow NEET West and PG&E to meet their obligation to add the CAISO-approved project to the CAISO-controlled grid, as defined in the *Functional Specifications* and the Approved Project Sponsor Agreement.

- **Meet Expected Future Electric Distribution Demand.** Provide a location for future 21 kV distribution facilities with a 230/70 kV source near the anticipated growth areas in northern Paso Robles to efficiently add distribution capacity and improve service reliability when required in the Paso Robles Distribution Planning Area.
- **Balance Safety, Cost, and Environmental Impacts.** Locate, design, and build the project in a safe, cost-effective manner that will also minimize environmental impacts.

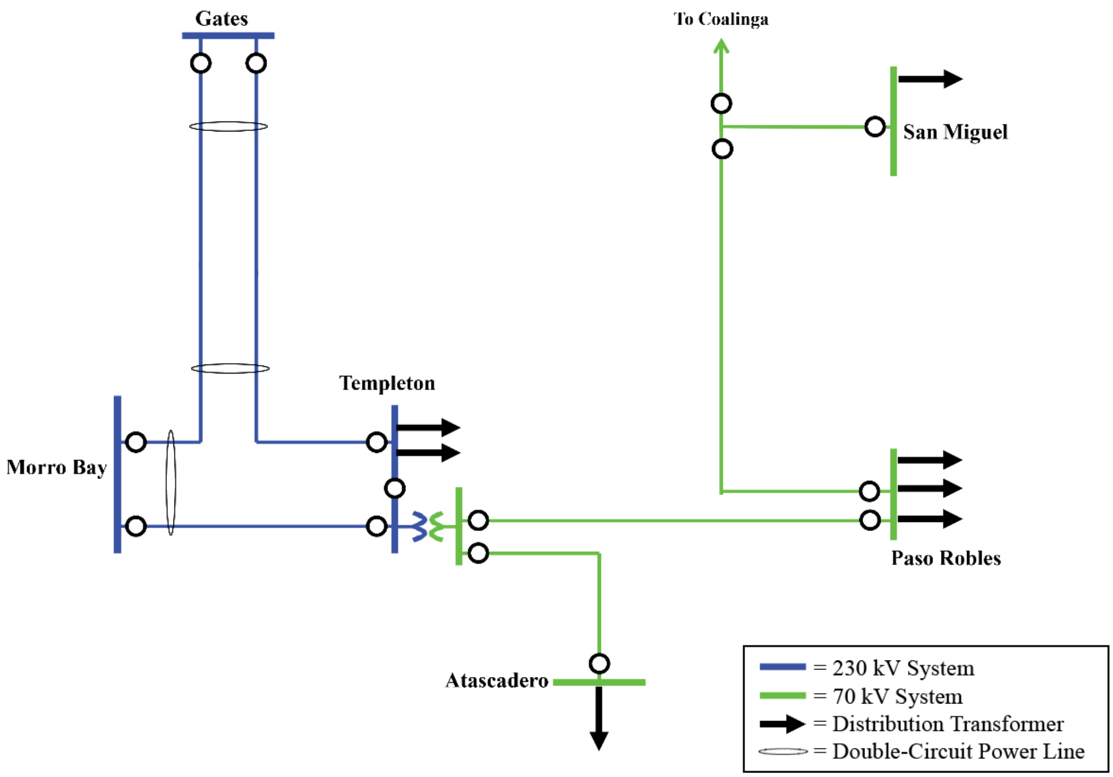
The project is needed to mitigate thermal overloads and voltage concerns in the Los Padres 70 kV system. Currently, a loss of the Templeton-Paso Robles 70 kV Power Line or the Templeton 230/70 kV transformer puts approximately 60–70 megawatts (MW) of load at risk. Further, a loss of both existing Gates-Templeton 230 kV transmission lines would jeopardize the entire 70 kV system serving the communities of San Miguel, Paso Robles, Templeton, Creston, Atascadero, and Santa Margarita. In addition to alleviating these concerns, the project will also provide a location for distribution system reinforcements expected to be needed—possibly on short notice—in the foreseeable future. Improvements to the power grid will allow the project proponents to provide a highly reliable and stable electricity source that meets the evolving needs of the growing local economy, while reducing the likelihood of power outages, thus creating a more reliable power system.

2.3 EXISTING SYSTEM

For northern San Luis Obispo County, electric power is transmitted at voltages of 230 kV and 70 kV and originates from three regional substations: Gates, Morro Bay, and Templeton. Figure 2-1, Existing Electric Transmission System, provides a simplified schematic of the existing transmission system. Power from these regional substations is then stepped down at local distribution substations and distributed to customers using overhead or underground distribution lines at voltages of 12 kV or 21 kV.

Two 230 kV circuits connect Gates Substation to Morro Bay Substation. One of these circuits interconnects with Templeton Substation along the way. Templeton Substation provides transmission power to northern Atascadero, Templeton, Creston, and surrounding rural areas. The Templeton-Gates 230 kV transmission line is stepped down from 230 kV to 70 kV at Templeton Substation using a 230/70 kV transformer. Templeton Substation then transmits 70 kV electric power to Atascadero, Paso Robles, and San Miguel Substations, where the voltage is further stepped down to 12 kV or 21 kV to provide power for distribution to their respective local communities. Templeton Substation is also a 70/21 kV distribution substation with three feeders extending north and three distribution lines (feeders) extending south.

Figure 2-1. Existing Electric Transmission System



2.4 PROPOSED SYSTEM

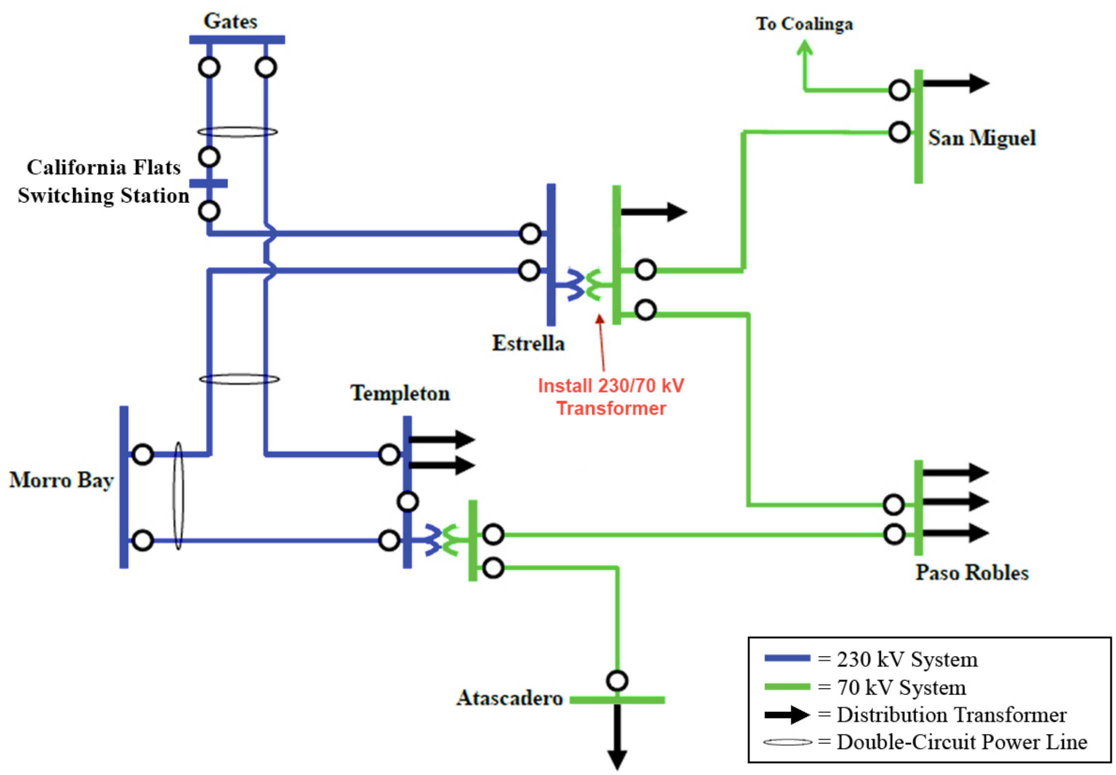
As described in Section 2.2, Estrella Substation will provide better operational flexibility and improved area system reliability for customers in San Miguel, Paso Robles, Templeton, Creston, Atascadero, and Santa Margarita in the northern San Luis Obispo County service area. According to CAISO:

> *The scope of this project is to construct a new 230/70 kV substation. Estrella Substation's 230 kV bus*[1] *will be looped into [the Morro-Bay Gates 230 kV line]. A new 230/70 kV transformer will be installed at Estrella Substation. Estrella Substation's 70 kV bus will be looped into the existing San Miguel-Paso Robles 70 kV Line* (CAISO 2014).

Figure 2-2, Proposed Electric Transmission System, provides an overview of the service territory after the project is in-service. Minor modifications will be required at California Flats Switching Station and Morro Bay, Paso Robles, San Miguel, and Templeton Substations, and phasing on existing lines will need to be rearranged in order to accommodate the changes to the existing electrical system.

[1] A bus is a conductor that serves as a common connection for two or more circuits within a substation. Its main purpose is to conduct electricity.

Figure 2-2. Proposed Electric Transmission System



The project addresses the immediate need for transmission system reliability and does not increase the reliability or capacity of the distribution system. However, long distribution feeders are compromising reliability and additional distribution capacity is expected to be needed in the area, possibly on short notice, within 5 to 15 years. For this reason, the 70 kV substation component includes a location for the new 70/21 kV distribution facilities, including a new distribution transformer and three 21 kV feeders, shorten existing feeders and provide approximately 28 MW of additional distribution capacity when needed. These new distribution facilities are considered a reasonably foreseeable consequence of the proposed project for California Environmental Quality Act (CEQA) review purposes, and are therefore included—to the extent details are known at this time—in the PEA's impact analysis.

There are no other foreseeable future phases or projects that are currently connected to or associated with the construction, operation, or maintenance of the project or any of its components. Any future expansion will be based upon future electrical demand and/or reliability requirements and is not part of this project. While Estrella Substation, at ultimate build-out, has space for future 230 kV transmission lines, a second 230/70 kV transformer, and associated transmission facilities on the NEET West portion of the site, and future 70 kV lines, two additional 70/21 kV distribution transformers, and associated distribution facilities on the PG&E portion of the site, these future transmission and substation facilities are not yet planned and are unlikely to be built for at least 20 years, if at all. This potential future expansion is therefore not reasonably foreseeable and its impacts are not analyzed in this PEA.

2.5 PROJECT LOCATION

The project is located within the northern portion of San Luis Obispo County, California, including portions of the city of Paso Robles. The nearest other communities are San Miguel, which is approximately 9 miles to the northwest, and Templeton, which is about 8.5 miles to the southwest (see Figure 2-3, Project Overview Map).

Land uses in the project area are a mixture of intensive agriculture and urban and rural residential development. North of State Route (SR-) 46 and within the city limits, land uses consist of light industrial development, rural residential development, and wineries/vineyards. Topography in the vicinity of the project is generally rolling hills, with existing elevations ranging from approximately 920 feet to 960 feet above mean sea level.

2.5.1 Estrella Substation

Estrella Substation will be located on an approximately 15-acre portion of a 98.6-acre parcel of land and is comprised of NEET West's 230 kV substation and PG&E's 70 kV substation (see Figure 2-4, Estrella Substation Site Overview Map. Collectively, these two substations are referred to herein as Estrella Substation.

The entire approximately 15-acre Estrella Substation site is currently planted with grape vines with 10-foot-wide span lengths. Several existing dirt maintenance roads traverse the parcel. Scattered oak trees are located close to Union Road along with one residential dwelling at the southwest corner of the parcel. Dry Creek, an ephemeral tributary to Huerhuero Creek, passes approximately 1,500 feet to the north of the project's substation site. With the exception of the one residence, no commercial, religious, or public facilities are located within 1,000 feet of the perimeter of the substation site. The topography of the site is moderately sloped with rolling hills in the vicinity.

The site is bordered by Union Road to the southeast, PG&E's existing easement for a 230 kV double-circuit transmission line and a 500 kV transmission line to the northwest, and vineyards under cultivation to the south and northeast. The existing transmission lines traverse along the northwest portion of the Estrella Substation site on two sets of lattice steel towers (LSTs).

The existing 230 kV transmission line will be interconnected into the new 230 kV Estrella Substation as part of the project. The 230 kV transmission interconnection will be constructed within the existing PG&E easement and the project substation property.

Figure 2-3. Project Overview Map

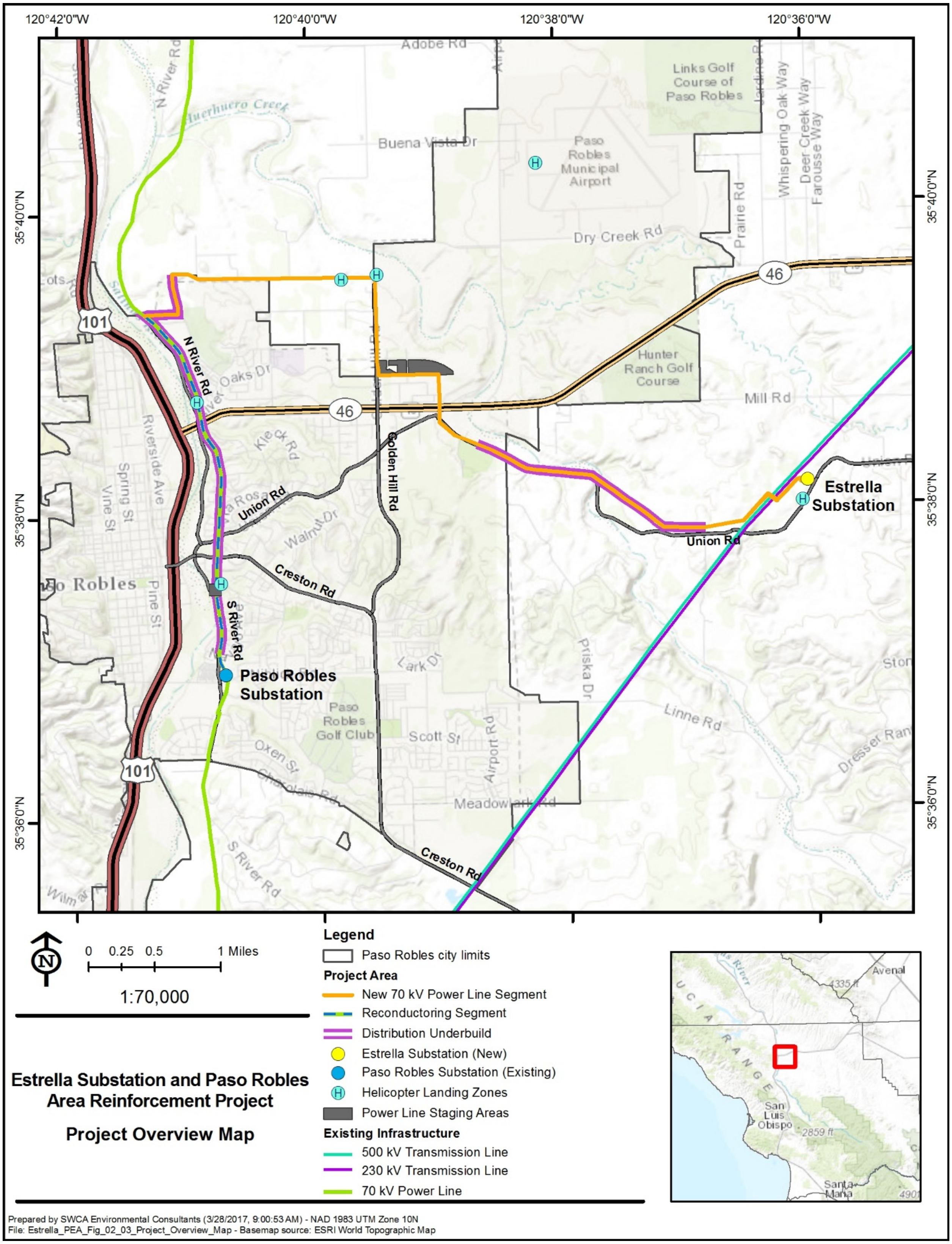
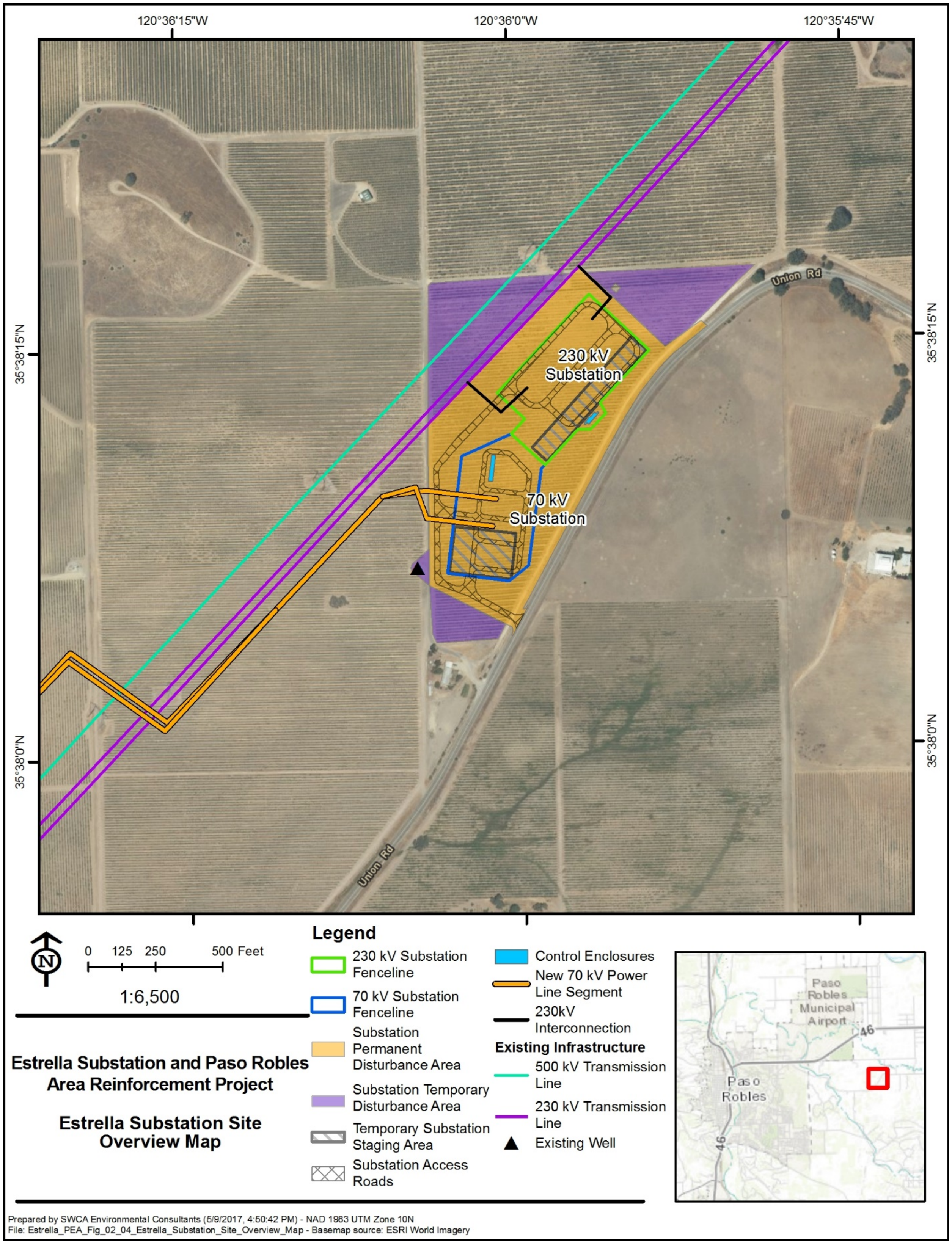


Figure 2-4. Estrella Substation Site Overview Map



2.5.2 Power Line

The power line consists of a new, approximately 7-mile-long 70 kV power line between Estrella Substation and the existing San Miguel-Paso Robles 70 kV Power Line and the reconductoring of approximately 3 miles of the existing line from the point of connection to Paso Robles Substation.

The new 70 kV power line segment will travel southwesterly from Estrella Substation, spanning over vineyards, and crossing under and paralleling existing 230 kV and 500 kV transmission lines for approximately 0.5 mile. North of Union Road, the new line turns westerly and joins an existing 12 kV overhead distribution line, which becomes an underbuild[2] on the new structures. The new line follows existing distribution lines for about 2.5 miles, extending through vineyards and large residential properties on the north side of Union Road, and then turning northwesterly and crossing Huerhuero Creek and continuing along the north side of Union Road.

Near the Paso Robles Sports Club, the new 70 kV power line segment leaves the existing distribution alignment and crosses to the southwesterly side of Union Road. The new line continues in a northwesterly direction, crossing SR-46, and then generally travelling westerly for approximately 0.5 mile to Golden Hill Road. At Golden Hill Road, the route will head northerly along the Golden Hill Road alignment for approximately 1 mile and adjacent to the existing light industrial uses to the east and existing residences to the west. The new line then continues generally westerly for approximately 1.5 miles and then southwesterly for 0.5 mile to River Road, adjacent to existing residences, vineyards, and other agricultural uses. At River Road, the new 70 kV power line segment will interconnect with the existing San Miguel-Paso Robles 70 kV Power Line.

An approximately 3-mile-long portion of the existing San Miguel-Paso Robles 70 kV Power Line will be reconductored beginning where the new overhead segment intercepts the existing 70 kV power line. The reconductoring segment runs behind and through predominantly residential areas, extending south along the existing pole line alignment on the easterly side of River Road for about 1 mile, crossing SR-46, then continuing southerly for about 2 miles, crossing Union and Creston Roads, then into Paso Robles Substation.

2.6 PROJECT COMPONENTS

The project is comprised of two main components: Estrella Substation and the 70 kV Power Line. Each of these main components have several subcomponents, which are described below.

- **Estrella Substation Components**
    - Constructing a new 230 kV substation to be owned and operated by NEET West
    - Constructing a new 70 kV substation to be owned and operated by PG&E, with a location for future 70/21 kV distribution facilities

[2] Distribution underbuild: a lower voltage distribution line placed underneath a higher voltage power line on the same structure or set of structures.

   - Constructing a 230 kV transmission line interconnection to be owned and operated by PG&E
- **Power Line Components**
   - Constructing a new 70 kV double-circuit power line between the new 70 kV substation and the existing San Miguel-Paso Robles 70 kV Power Line (new 70 kV power line segment), to be owned and operated by PG&E
   - Reconductoring a portion of the existing 70 kV power line between the interconnection point of the new 70 kV power line and Paso Robles Substation (reconductoring segment), to be owned and operated by PG&E

A common neutral will be collocated along the entire length from Estrella Substation to Paso Robles Substation. A fiber optic line for communication services will be installed on the 70 kV power line to provide a fiber optic link between Estrella Substation and Paso Robles Substation. The various project components are described in the following sections and summarized in Table 2-1, Project Components.

Table 2-1. Project Components

Component	Approximate Quantity	Approximate Height Range and Average Height (feet)	Total Approximate Permanent Ground Disturbance (Acres)
Estrella Substation*			
Substations			
230 kV Substation	1	65 (approximate tallest 230 kV dead-end structure)	4.0 (fenced portion)
70 kV Substation	1	37 (approximate tallest 70 kV dead-end structure)	3.5 (fenced portion)
230 kV Transmission Line Interconnection			
Lattice Steel Tower	6	39–113 68	0.2
Power Line Route*			
New 70 kV Power Line Segment			
Light-Duty Steel Pole	63	70–110 91	0.3

Table 2-1. Project Components

Component	Approximate Quantity	Approximate Height Range and Average Height (feet)	Total Approximate Permanent Ground Disturbance (Acres)
Tubular Steel Pole	38	68–133 99	0.2
Wood Distribution Poles	1	46	<0.1
Reconductoring Segment			
Light-Duty Steel Pole	40	76–101 85	0.2
Tubular Steel Pole	9	71–108 88	<0.1
Wood Distribution Poles	6	48–62 56	<0.1

Notes: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors. `

* Permanent ground disturbance for Estrella Substation is approximately 15 acres, including the area that will be permanently disturbed outside of the 230 kV and 70 kV substation fence lines.

** Permanent ground disturbance for the power line route assumes a 10-foot radius at each pole location in grassland areas.

2.6.1 Estrella Substation

Estrella Substation will be comprised of two separate and distinct substations on an approximately 15-acre site. One 230 kV substation will be constructed, operated, and owned by NEET West and one 70 kV substation will be constructed (following site preparation and rough grading work by NEET West), operated, and owned by PG&E. The preliminary substation layout is provided in Figure 2-5, Estrella Substation Layout.

Access to the Estrella Substation site will be off Union Road, on a new main private access road. The main access road will be paved and measure about 1,100 feet long and typically about 20 feet wide. Interior asphalt-paved roads within Estrella Substation will measure, in total, approximately 1,250 feet long and typically about 16 feet wide. Areas outside of the equipment foundations will be covered with about 6 inches of crushed rock. The private access driveway will occupy about 0.7 acre and the interior roads will occupy about 1.5 acres.

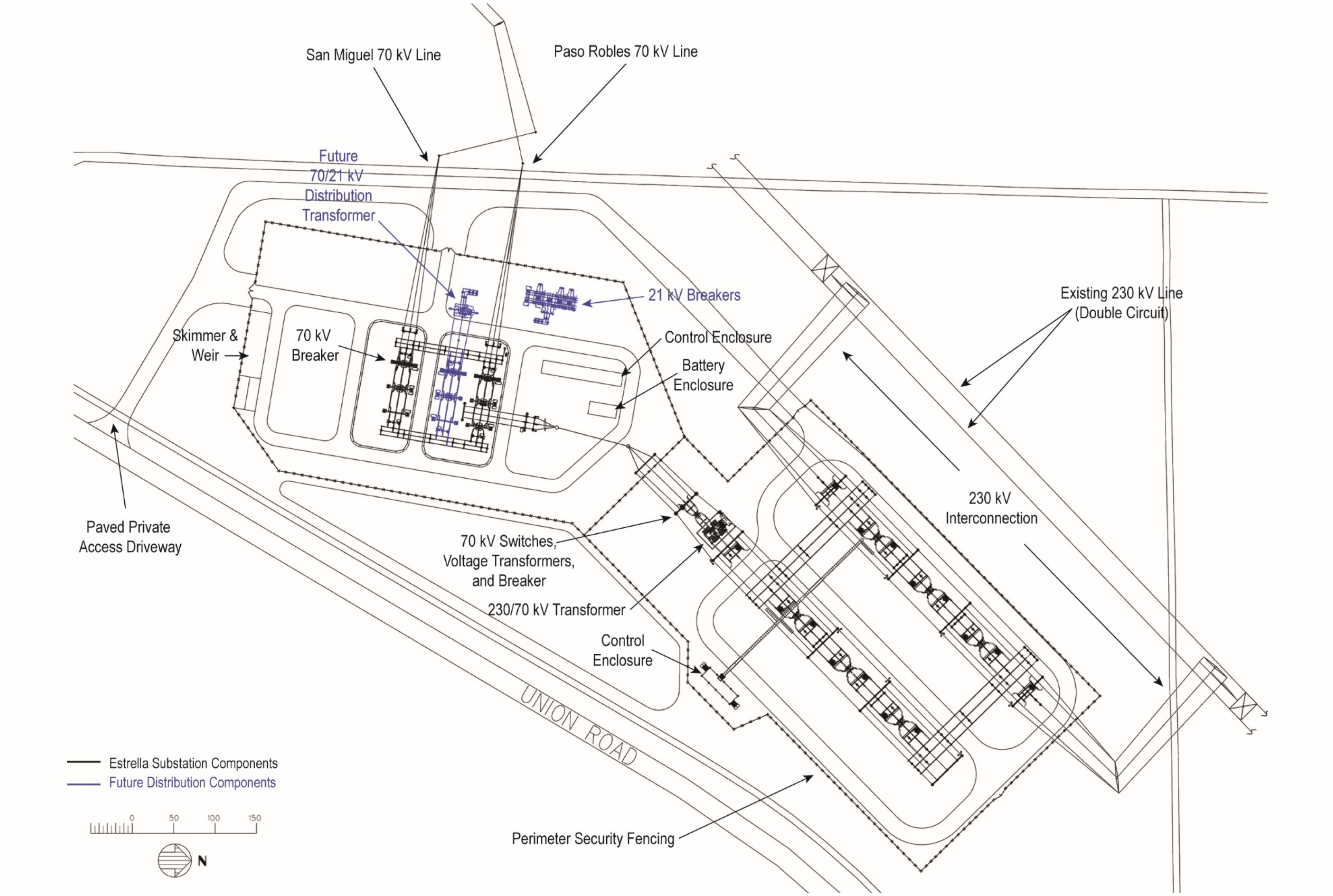
The private drive extending from Union Road will have a secure gate accessible by both NEET West and PG&E. The 230 kV and 70 kV substations will each have secure gates accessible only by the respective NEET West and PG&E staff. From the main access road, the 230 kV substation will have one access point and the 70 kV substation will have two separate access points. The entrance gates will be a minimum 16 feet in width and will be locked and monitored remotely to limit access to only qualified personnel. Warning signs will be posted on the perimeter chain-link fencing and gates in accordance with the National Electric Safety Code (NESC) and the respective NEET West and PG&E guidelines.

Lighting will be installed at Estrella Substation and will conform to NESC requirements. NESC recommends, as good practice, illuminating the substation facilities to a minimum of 22 lux or 2 foot-candles. Lighting will consist of sodium vapor or light-emitting diode fixtures and will be installed inside the facility and at the entry/exit gates to allow for safe access to the facility and its equipment. The fixtures will be mounted on legs of dead-end or switch support structures, the control enclosure, and on approximately 12-foot-tall galvanized steel lighting poles. Lights will be controlled by a photocell that automatically turns the lights on and off. All on-site lighting will be oriented downward to minimize glare onto surrounding property. Additional manually controlled lighting will also be provided to create safe working conditions at the substation when required. The exact number of fixtures and their output and location will be determined during final facility design.

The 230 kV and 70 kV substations will have their own sources of station power. Power required for construction and operation of Estrella substation will be supplied by tapping into the existing power lines adjacent to each substation site. Electric service will be requested from the local utility and applied for so that power can be served from the existing power lines adjacent to the station. Small generators may also be used to supply temporary power during construction at the substation site.

The existing telecommunications network will connect to Estrella Substation by splicing optical ground wire (OPGW) on the nearby existing 230 kV towers and installing a fiber optic line for communication services on the power line between Estrella and Paso Robles Substations. The communication cables will transition from the last 230 kV tower or 70 kV pole outside of the substation and enter a pull/splice box positioned near the base of each structure. From each pull/splice box, the fiber optic cable will transition underground in 4-inch conduits to the substation. All pull/splice boxes used for telecommunication cable will be 3-foot by 5-foot pre-cast polymer concrete.

Figure 2-5. Estrella Substation Layout



2.6.1.1 230 kV Substation

The 230 kV substation will be owned and operated by NEET West. The preliminary configuration for the 230 kV substation is provided in Figure 2-6, 230 kV Substation General Arrangement, and Figure 2-7, 230 kV Substation Profile View. The tallest structures within the 230 kV substation will be the dead-end structures, which are approximately 65 feet high and 50 feet wide.

The following electrical equipment will be located within the fenced area of the 230 kV substation in the proposed configuration:

- Two 230 kV Aluminum Buses
- One three-phase 230/70 kV 200 Megavolt Amperes (MVA) Transformer
- Fifteen 230 kV Capacitive Voltage Transformers
- Thirteen 230 kV and one 70 kV Group Operated Air Break Switches
- Five 230 kV and one 70 kV Sulphur Hexafluoride (SF_6) Insulated Circuit Breakers
- Eight 230-kV and one 70 kV Dead-end Steel Structures
- Nine 230 kV and three 70 kV Lightning Surge Arresters
- A Protection and Control Enclosure measuring about 48 feet long, 14 feet wide, and 12 feet high will be installed on 10 concrete piers measuring about 11 feet deep. The control enclosure will have redundant air-conditioning units installed to protect electronic components.

In addition to the electrical equipment, the 230 kV substation will include the following infrastructure:

- Lighting and signage
- Telecommunications and distribution feeder line for electrical service
- Secondary containment for transformer oil spill control on applicable equipment
- One spare SF_6 filler tank
- Graveled internal access road
- Perimeter security fencing

The fenced portion of the 230 kV substation will be approximately 4 acres in size. An approximately 7-foot-tall chain-link fence with 1 additional foot of barbed wire will be installed around the remaining perimeter of the 230 kV substation.

Figure 2-6. 230 kV Substation General Arrangement

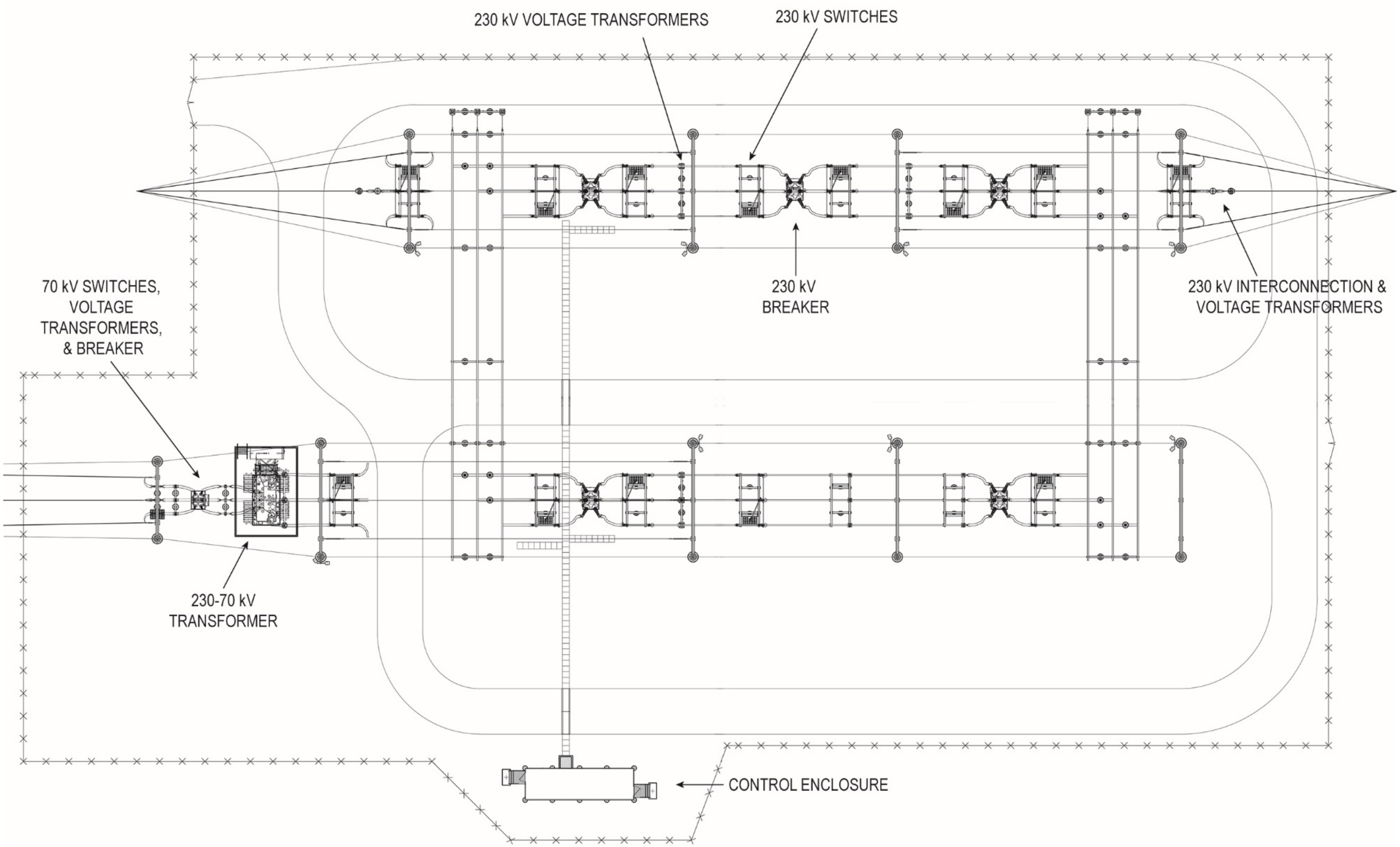
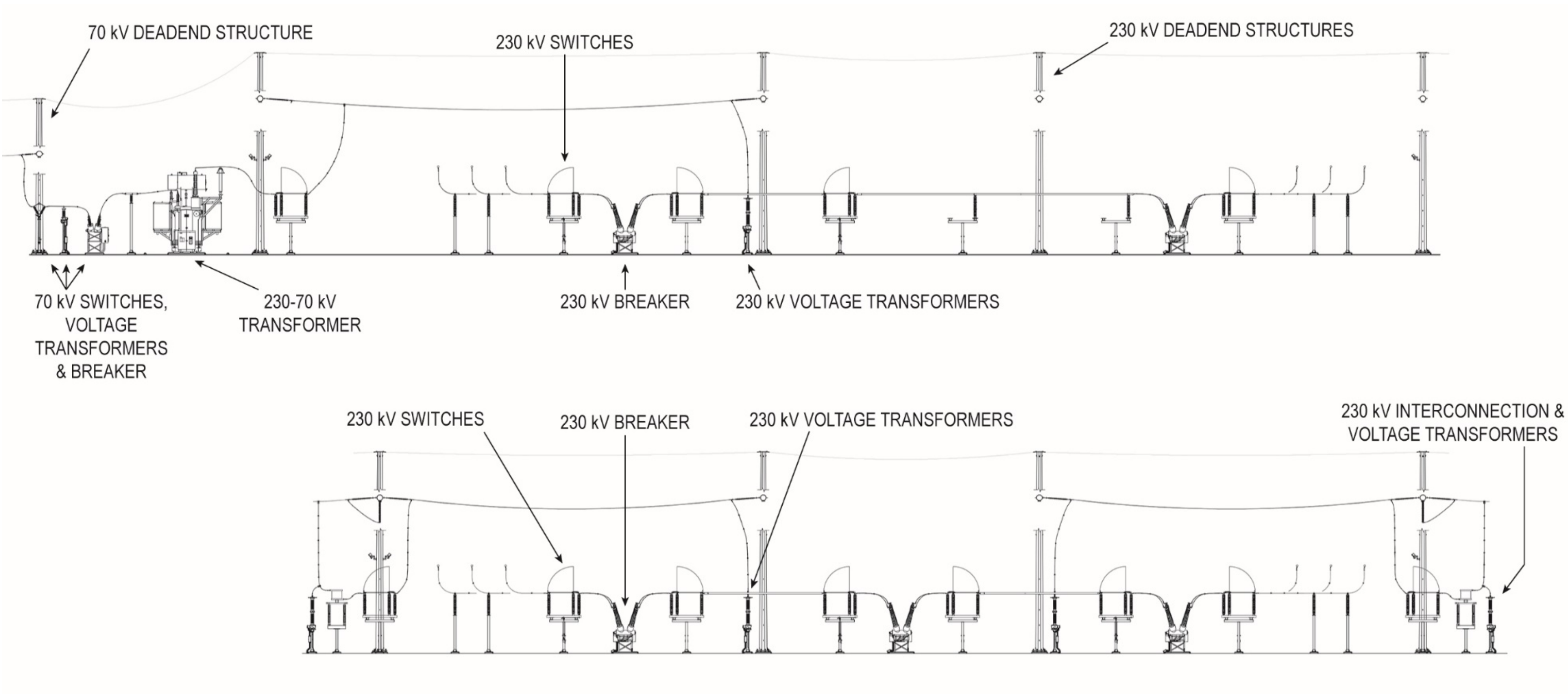


Figure 2-7. 230 kV Substation Profile View



The maximum amount of mineral oil required for the transformer will be approximately 15,290 gallons. The mineral oil will be utility grade, low-volatility mineral oil. Based on the anticipated volume of dielectric/mineral oil in excess of 1,320 gallons to be used at the 230 kV substation, a Spill Prevention, Control, and Countermeasure (SPCC) Plan will be required, in accordance with Code of Federal Regulations (CFR) Title 40, Parts 112.1–112.7, and will address the project spill prevention and containment design measures and practices. The 230 kV substation will be constructed with secondary containment design in accordance with SPCC requirements for oil containment in the event of a spill. A concrete secondary containment basin will provide mineral oil containment for the transformer, and will be designed to allow sufficient freeboard to include the oil volume of the transformer plus the precipitation from a 25-year, 24-hour storm event. Following a storm event, rainwater collected in the containment area will be visually inspected for any contamination before allowing to drain off-site through existing drainage swales along Union Road.

The 230 kV substation will connect to existing power and telecommunications located on an existing distribution pole at the northeast corner of the substation site along the edge of Union Road. Electricity will be used for construction (i.e., power construction trailers, lighting, and small hand-held machinery or tools) and operation back-up station service power. The electric power and telecommunication circuits (telephone and T1, either copper or fiber) will be brought to the 230 kV substation on either overhead distribution poles or underground conduits. If overhead, up to six approximately 40-foot-tall wood distribution poles may be constructed between the existing distribution pole and the 230 kV substation. The poles will be direct embedded up to approximately 6 feet. If undergrounded, the back-up power and communications will be brought into the 230 kV substation using up to three underground conduits.

2.6.1.2 230 kV Transmission Interconnection

The 230 kV transmission line interconnection will be owned and operated by PG&E. It will connect the existing 230 kV transmission line to Estrella Substation in two separate locations—a northern and a southern interconnection. The 230 kV interconnection structures include LSTs similar to the existing 230 kV transmission line towers. A summary of typical transmission structures has been provided in Table 2-1, Project Components, and graphic representations of these structures are included in Figure 2-11, Typical Structure Diagrams.

The northern interconnection into Estrella Substation will begin with the replacement of an existing 230 kV LST approximately 200 feet to the northeast along the existing 230 kV transmission line alignment. From there, the northern interconnection will continue southwesterly within the existing 230 kV alignment for approximately 60 feet until reaching a new LST. From this point, the northeasterly interconnection will head southeasterly for approximately 180 feet to a new LST. From this tower, the northern interconnection will head southwesterly, terminating at the northerly 230 kV bus structure within Estrella Substation.

The southern interconnection will leave the southerly 230 kV bus structure within Estrella Substation, heading southwesterly for approximately 60 feet to a new LST. From this tower, the southern interconnection will head northwesterly for approximately 180 feet to a new LST located in line with the existing 230 kV alignment. From this point, the southern interconnection will follow the existing 230 kV alignment approximately 60 feet southwesterly to a new LST.

This final tower will interset in the existing 230 kV conductor and complete the 230 kV interconnection.

The six 230 kV interconnection towers will each be mounted on four individual concrete pier foundations, and their base footprint will vary from 25 by 25 feet to 27 by 20 feet. These towers will be configured with six non-reflective, gray porcelain or clear glass insulator strings to support three individual conductors. Three conductors will be installed on each side of the towers and will be arranged in a vertical configuration. New and replacement LSTs within the existing easement will be configured to carry the existing six individual conductors. The overhead conductor will be attached to the new LSTs using non-reflective, gray porcelain or clear glass insulator strings. Structures and conductors will be installed with separation distance and ground clearance in accordance with CPUC General Order (G.O.) 95.

2.6.1.3 70 kV Substation

The 70 kV substation will be owned and operated by PG&E. The proposed configuration of the 70 kV substation is shown in Figure 2-8, 70 kV Substation General Arrangement, and Figure 2-9, 70 kV Substation Profile View. The tallest structures within the 70 kV substation, other than the poles supporting the 70 kV lines, will be the dead-end structures, which are approximately 37 feet high and 28 feet wide.

The following major electrical equipment will be located within the fenced area of the 70 kV substation in the proposed configuration:

- Two 70 kV Aluminum Buses
- Two 70 kV Bus Voltage Transformers
- Seven Line Voltage Transformers
- Station Service Voltage Transformer
- Eleven 70 kV Group Operated Air Break Switches
- Five 70 kV SF_6 Insulated Circuit Breakers
- Nine 70 kV Dead-end Steel Structures
- Three 70 kV Lightning Surge Arresters
- A Protection and Control Enclosure measuring approximately 16 feet wide, 96 feet long, and 11 feet tall will be installed on concrete pad measuring about 3 feet deep. The exterior of the control enclosure will have an air-conditioning unit installed to protect electronic components.

Figure 2-8. 70 kV Substation General Arrangement

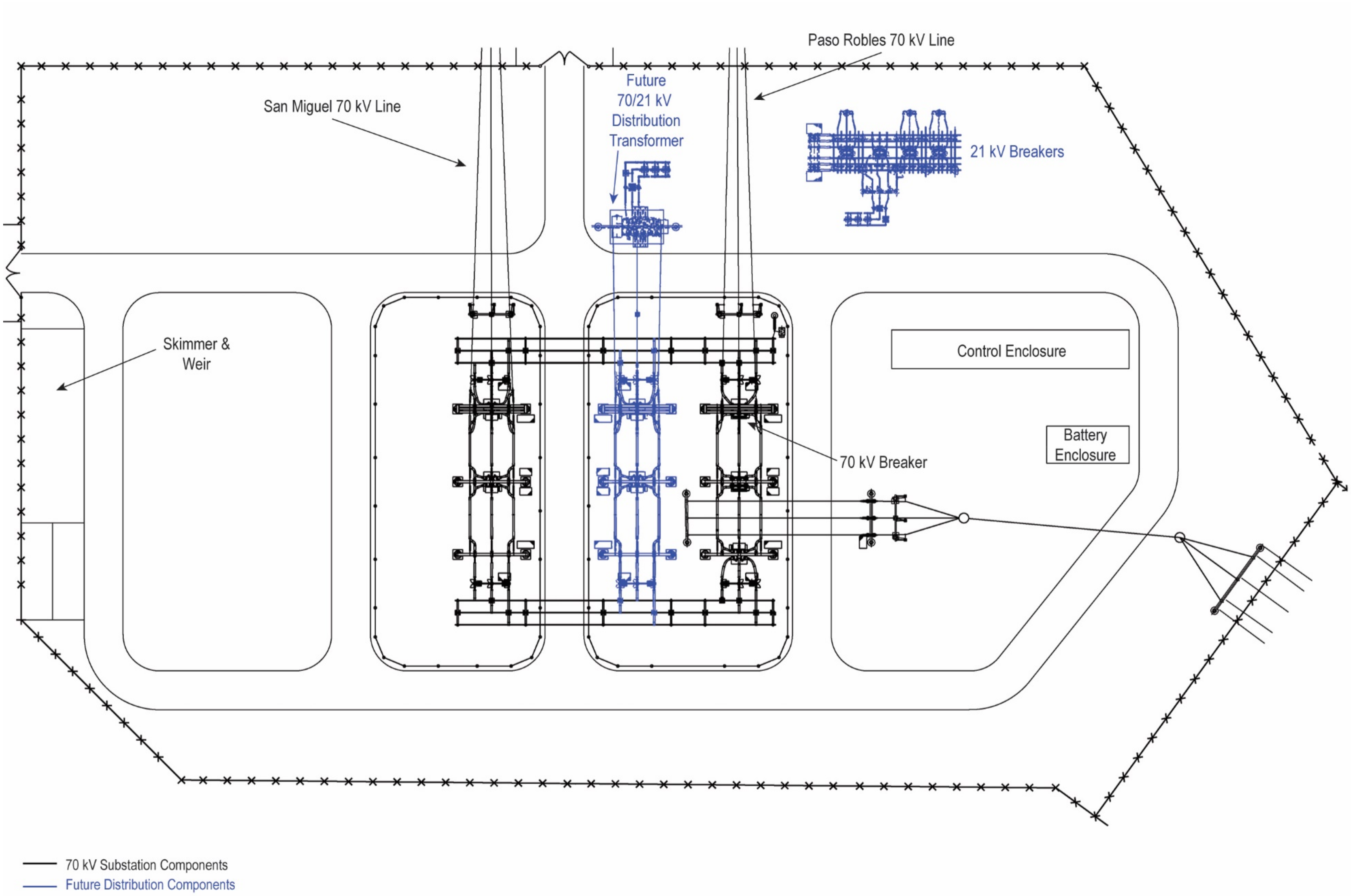


Figure 2-9. 70 kV Substation Profile View

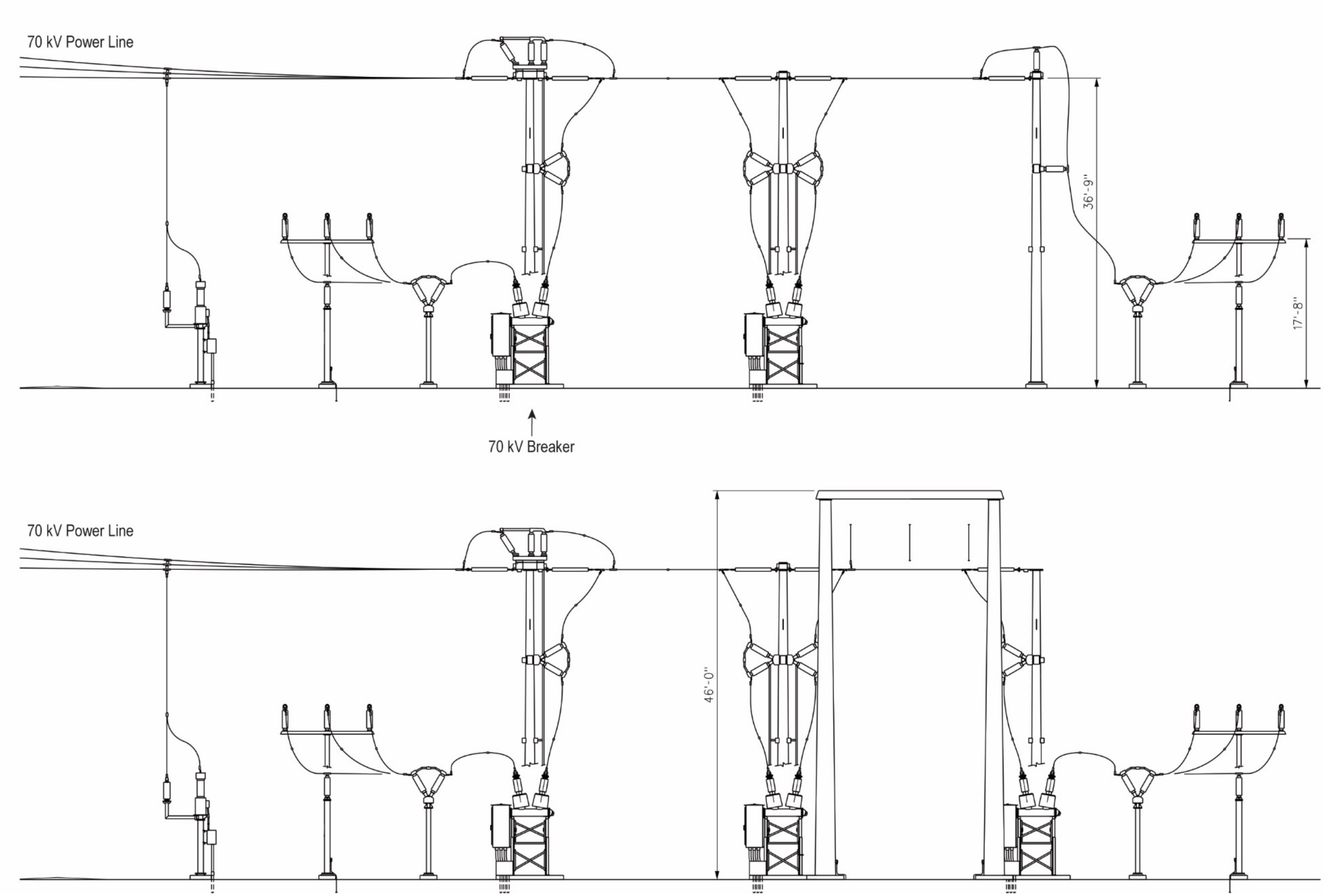
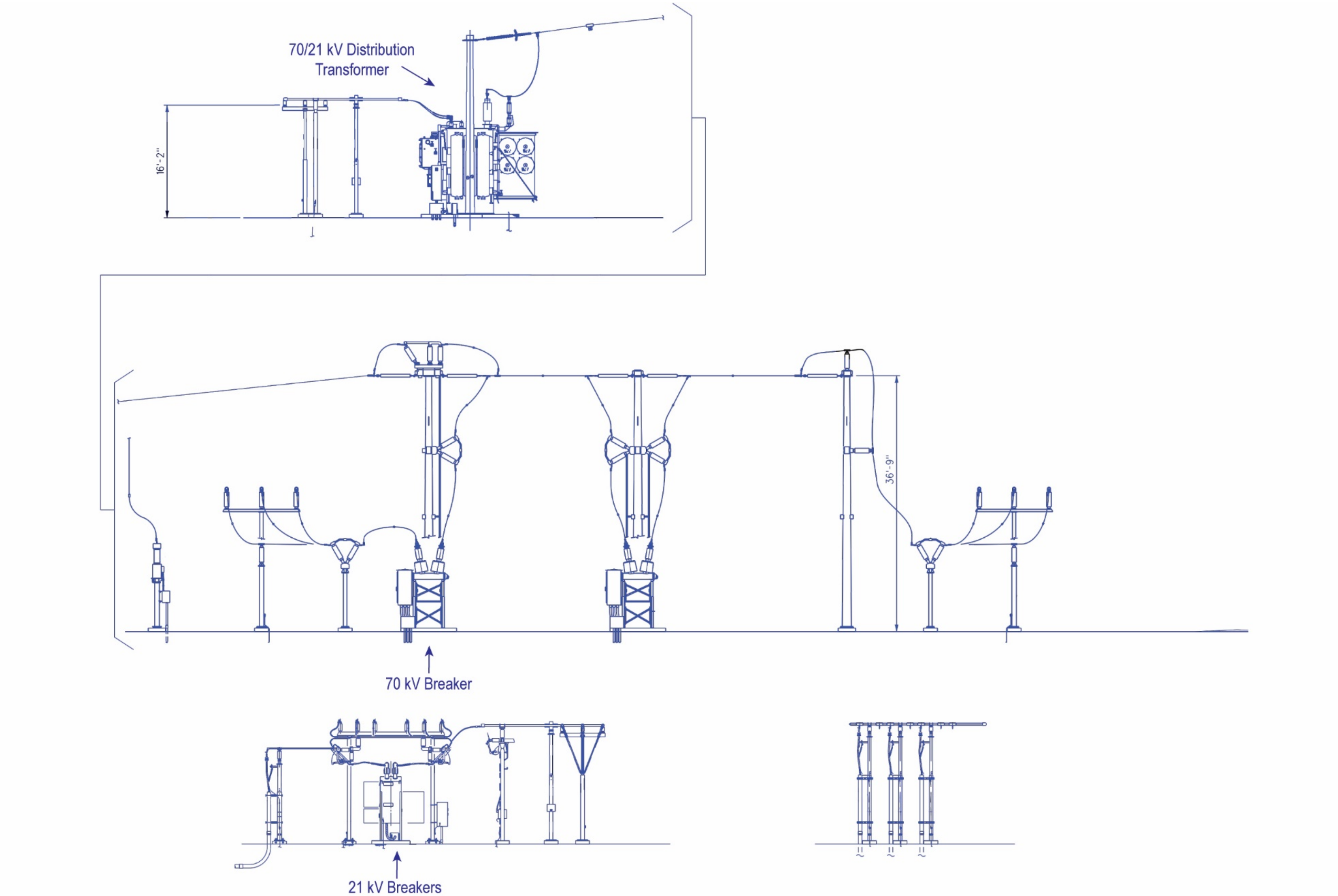


Figure 2-10. 70 kV Substation Profile View with Future Distribution



In addition to the electrical equipment, the 70 kV substation will include the following infrastructure:

- Dark sky lighting and signage
- Battery enclosure
- Paved internal access road
- Concrete skimmer/weir
- Perimeter security fencing

The fenced portion of the 70 kV substation will measure approximately 3.5 acres within the parcel acquired from NEET West. An approximately 8-foot-tall chain-link fence with 1 additional foot of barbed wire will be installed around the remaining perimeter of the 70 kV substation.

The 70 kV substation will not store mineral oil. A concrete skimmer and weir device will be constructed at the southeast corner of the substation. This concrete device settles and collects sediment that is washed down by stormwater before it is discharged from the substation.

The 70 kV substation will have two sources for power—a primary source and a secondary back-up source. The primary source will connect off the 70 kV bus within the perimeter of the 70 kV substation. The secondary power source will be from an existing 21 kV line located along Union Road. This distribution line may enter the 70kV substation from overhead or underground routes. Depending on the distance from the existing distribution line, PG&E will install either a pole-mounted transformer on an existing pole along the existing distribution line along Union Road or a pad mount transformer located adjacent to the 70 kV substation control enclosure.

2.6.1.4 Future Distribution Facilities

Future distribution facilities will be owned and operated by PG&E. Although future distribution facilities are not part of the proposed project, PG&E's 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The proposed configuration of the 70 kV substation with distribution Figure 2-10, 70 kV Substation Profile View with Distribution. The timing of future expansion will be based upon system load demand and reliability concerns, and is not part of this project. However, PG&E expects that future distribution facilities will include the following project components:

- **Future Distribution Project Components**
  - Installing a new 30 MVA, 70/21 kV three-phase power transformer in the 70 kV substation, to be owned and operated by PG&E
  - Constructing three new 21 kV distribution feeders connecting into the existing distribution system, to be owned and operated by PG&E
  - Reconductoring existing distribution circuits as needed to integrate the new distribution facilities into the existing system

PG&E expects future distribution facilities to include the addition of approximately 0.6 miles of new distribution line installed in the utility easement on private property to the north of the 70 kV substation to connect one of the future distribution feeders to existing distribution on Mill Road. An additional segment of new line would be installed to extend the reach of existing feeders to serve the new load anticipated in northern Paso Robles. Such new line segments are typically installed along existing roadways, and a possible 1.1-mile general route for the new feeder has been provided in Appendix G, Distribution Need Analysis. In addition, approximately 8 miles of existing distribution circuits would need to be reconductored to accept the new power source from Estrella Substation. New overhead distribution lines will typically be supported by 18 poles per mile; therefore, a total of 1.7 miles of new distribution line would require about 31 new wood poles. New wood poles will likely be direct-bury poles (not requiring a foundation) and require approximately 3 square feet of permanent ground disturbance per pole. If pole replacements are required to support the reconductored circuits, they will likely have similar metrics.

2.6.2 Power Line

Power line components will be owned and operated by PG&E. The new 70 kV power line and reconductoring segments will use a combination of tubular steel poles (TSPs) and light-duty steel poles (LDSPs). LDSPs will have a surface treatment designed to render the appearance of a natural weathering of a wood pole. Typical drawings of each structure type have been included in Figure 2-11, Typical Structure Diagrams.

Power line structures will vary in height depending on their location and purpose, but typically will range between 80 to 90 feet. The approximate distance from the ground to the lowest conductor is 29 feet. Final structure design will incorporate the CPUC's G.O. 131-D requirement for utilities to employ "no cost" and specified "low cost" measures to reduce public exposure to electric and magnetic fields (EMF) in accordance with CPUC Decision 06-01-042 and the "EMF Design Guidelines for Electrical Facilities."[3] In areas where existing metal fences are in close proximity to the power line easement and cannot be replaced with non-conductive fences, wood or composite (fiberglass) poles will be used. These alternative poles may also be used in areas where existing underground utility metal lines are encountered in close proximity to structure locations, such as gas lines.

Both the new 70 kV power line segment and the reconductoring segment will use overhead aluminum electrical conductors, which, when installed, typically have a shiny surface appearance. This "reflective" or "specular" surface can make a transmission line more noticeable in appearance against the background landscape. The use of specular conductor is proposed for this project because it will be visible to small aircraft pilots that fly over the area.[4] Additionally, observations by PG&E and other utilities indicate that specular conductor

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[3] Although the CPUC has confirmed that EMF issues in a Permit to Construct proceeding are limited to the utility's compliance with CPUC's low-cost/no-cost policies (D.06-01-042, at 21), general background information concerning EMF is provided for public information purposes in Section 2.12, Electric and Magnetic Fields, and Appendix B.

[4] During initial discussions with the Airport Manager for the City of Paso Robles Municipal Airport, the issue of using specular conductor was raised and his response was that it will enable pilots who frequent the airport to become accustom to the new transmission wires.

transitions to non-specular in the course of few seasons after installation. As a result, the new conductor will match similar lines in the area in a relatively short period of time. In the short term, the shinier conductor makes a new line more visible to birds and pilots. The new conductors will be installed to meet or exceed the minimum separation distances and ground clearances in accordance with CPUC G.O. 95 and will meet raptor safety requirements.

In locations where existing distribution lines are located in close proximity to the power line alignment, the distribution conductors may be collocated on the power line structures. The existing conductors will typically be transferred to the new pole line as a distribution underbuild; however, in locations where the existing conductors are not able to be transferred, they will be replaced with an equivalent conductor. In addition, to meet PG&E power line design standards, a common neutral will be collocated along the entire length from Estrella Substation to Paso Robles Substation.

A description of the required structures and the associated conductors for the new 70 kV power line and reconductoring segment is provided below. The project has been designed to conform to the following applicable guideline: *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006).

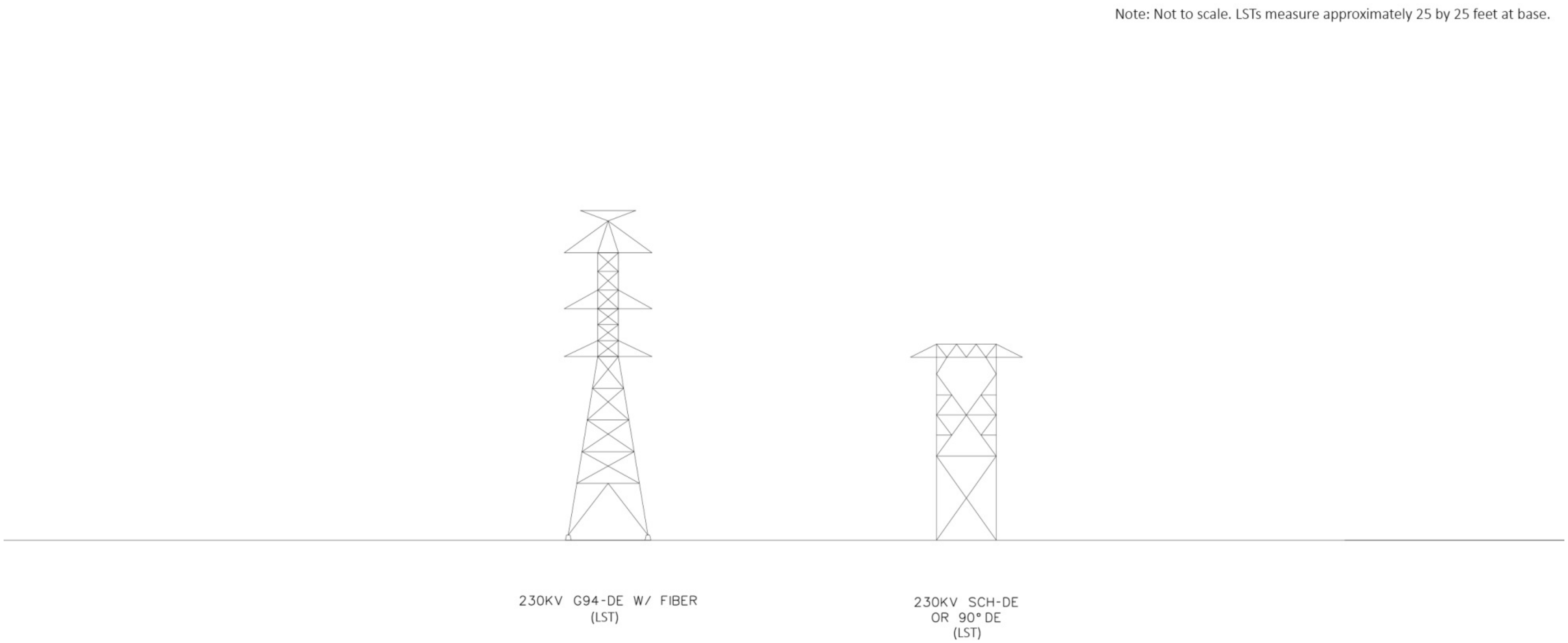
2.6.2.1 New 70 kV Power Line Segment

The new 70 kV power line segment will consist of approximately 7 miles of double-circuit 70 kV power line on a combination of two types of structures. TSPs will be utilized for the portion of the line that will be installed within the existing PG&E transmission corridor. In general, the TSPs will be installed adjacent to the existing 500 kV towers, utilizing an average span length of approximately 650 feet. Each TSP will be installed on one individual concrete pier foundation.

The remainder of the new 70 kV power line segment will utilize TSPs and LDSPs. These structures will typically be used in locations where the new 70 kV power line segment is not parallel to the existing 500 kV transmission line. TSP structures will be installed generally in locations where the alignment changes direction. The route will utilize an average span length of approximately 300 to 500 feet.

Structures along the new 70 kV power line segment will be configured with six individual aluminum conductors, measuring up to 1.25-inch diameter, and an underhung fiber optic cable, measuring up to 0.75-inch diameter. Three conductors will be installed on each side of the structures and will be arranged in a vertical configuration. The overhead conductor will be attached to the structures using 6 post insulators or insulator strings—3 per circuit—for tangent configurations, and up to 12 insulator strings—6 per circuit—for dead-end configurations.

Figure 2-11a. Typical Structure Diagrams[5]



[5] The structure designs will be confirmed during the final engineering phase of the project. The structures that are planned for the project are long lead-time items. Alternate structure designs (e.g., lattice steel poles, fiberglass poles, and wood poles) may be substituted based on structure availability, the results of final engineering, and the conditions in the vicinity of the planned structure location.

Figure 2-11b. Typical Structure Diagrams

Note: Not to scale. LDSPs have a 3-foot diameter at base and a 1-foot diameter at tip. TSPs have a 4-foot diameter at base and a 1.5-foot diameter at tip.

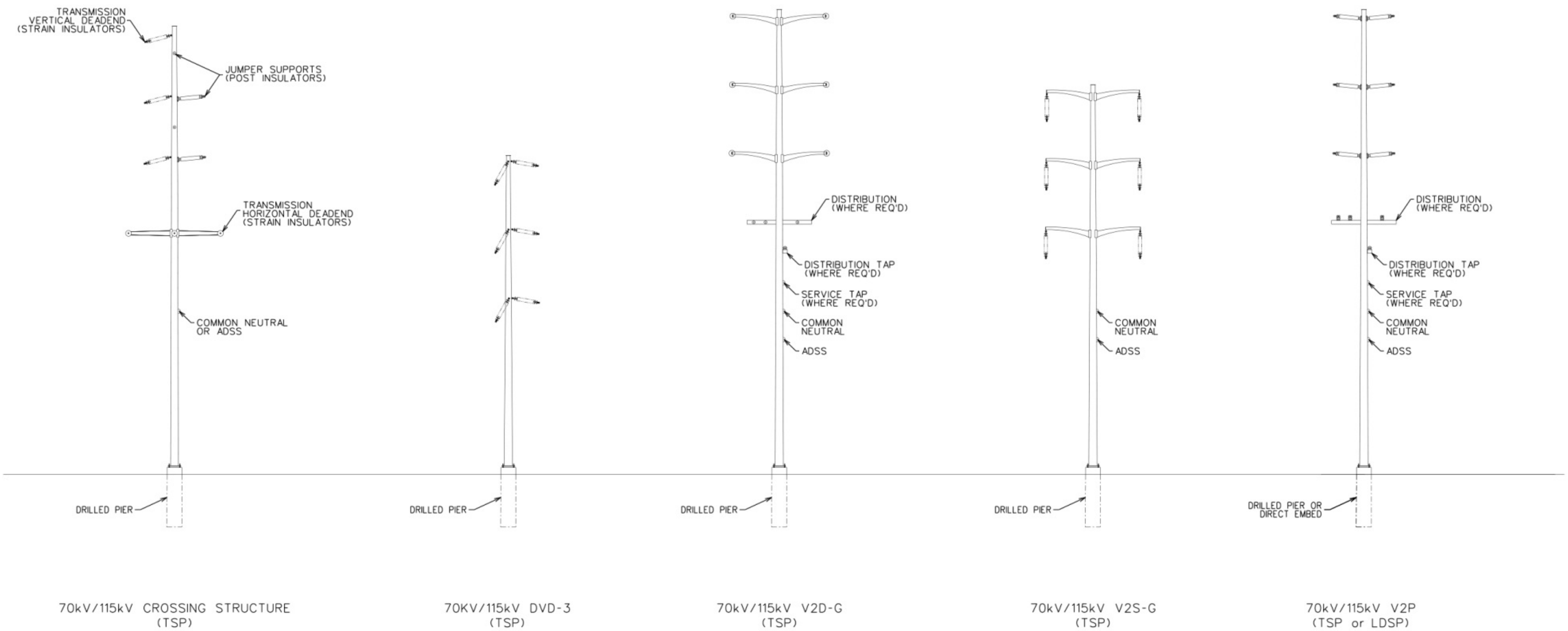
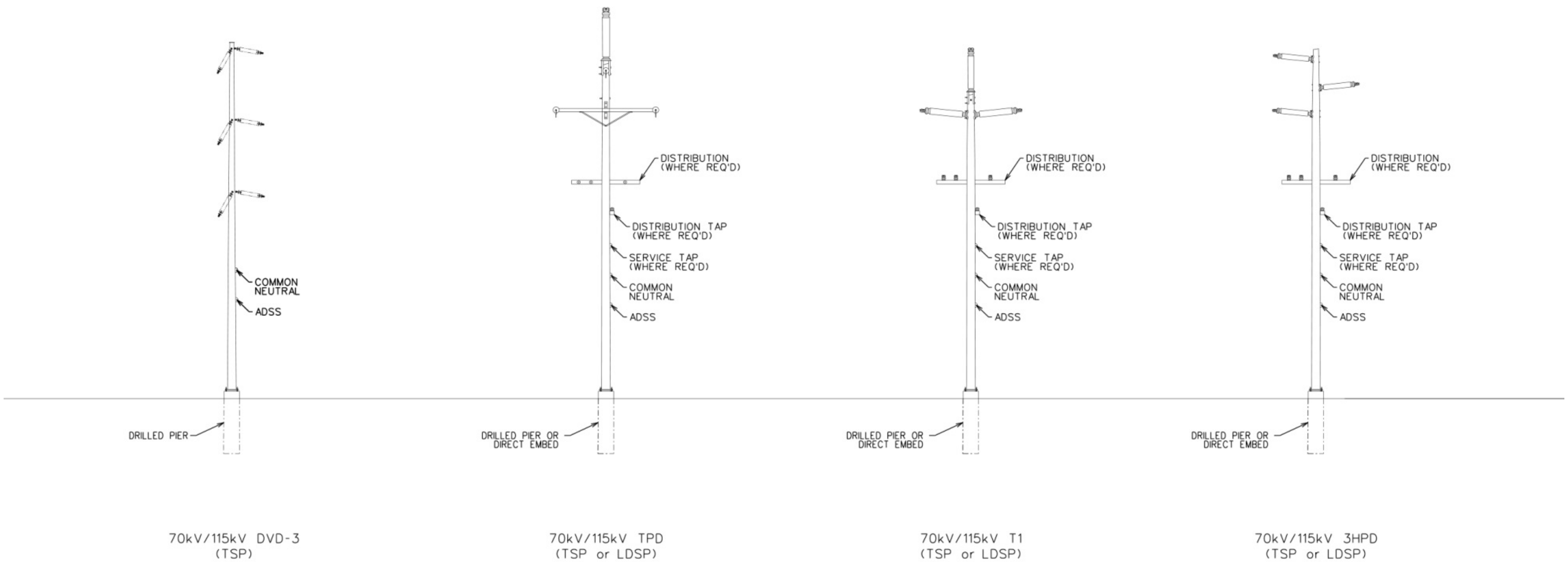


Figure 2-11c. Typical Structure Diagrams

Note: Not to scale. LDSPs have a 3-foot diameter at base and a 1-foot diameter at tip. TSPs have a 4-foot diameter at base and a 1.5-foot diameter at tip.



2.6.2.2 Reconductoring Segment

Reconductoring will occur on approximately 3 miles of single-circuit 70 kV power line, using a combination of TSPs and LDSPs. LDSPs will typically be used in locations where the alignment is generally straight and either guyed LDSPs or TSPs will be used in locations where the alignment changes direction, or where distribution tap spans are supported on line structures.

Anchors and guy wires will be attached to LDSPs and/or wood poles in locations where additional stability is required to support the conductor tension. The new poles will typically be installed within 10 feet of the existing poles, which will result in a typical pole span length of approximately 300 feet. The final pole designs, heights, and span lengths will be determined during final engineering based on the topography and existing land uses in the project area.

Poles along the reconductoring segment will continue to be configured to carry three aluminum conductors, measuring about 1.25-inch diameter, and an underhung fiber optic cable, measuring up to 0.75-inch diameter. The conductor will be attached to the poles using three insulators for tangent configurations and six insulators for dead-end configurations.

2.7 EASEMENT REQUIREMENTS

Permanent land and easement requirements for the project components are described in the subsections that follow. Land entitlement issues are not part of this regulatory proceeding, in which the CPUC is considering whether to grant or deny the project proponent's application for a Permit to Construct (PTC) new electrical facilities. Rather, any land rights issues will be resolved in subsequent negotiations and/or condemnation proceedings in the proper jurisdiction, following the decision by the CPUC on the application.

2.7.1 Estrella Substation

The parcel of land where Estrella Substation will be constructed is under private ownership. An affiliate of NEET West has an option agreement to purchase the approximately 15-acre portion of this parcel. Prior to construction, NEET West will purchase and hold fee title of this approximately 15-acre area. This area is adequate to accommodate the entire substation facility including all considerations for site grading, equipment laydown and storage, fencing, access and internal circulation, spill and stormwater management, and other operational considerations. Once all of the environmental permits from the applicable siting and regulatory agencies have been obtained and grading and drainage has been constructed for the entire substation site, NEET West will sell PG&E the land necessary for construction of the 70 kV substation and 230 kV interconnection.

The relocated 230 kV tower and three LSTs associated with the 230 kV interconnection will be installed within the existing transmission line easement. Two additional LSTs will be used to complete the interconnection and will be installed on the parcel that will be acquired for the development of Estrella Substation.

The telecommunications system extension will be installed within Estrella Substation, Paso Robles Substation, PG&E's existing transmission corridor, the easement obtained for the new 70 kV power line segment, and the existing easement for the reconductoring segment.

2.7.2 Power Line

New easement will be acquired for the majority of the new approximately 7-mile-long 70 kV power line segment, up to 115 feet wide with the width to vary based on the location of the new power line. When on private property, the easement will typically be 70 feet wide, and the poles will be located in the center of the easement (35 feet on each side). In locations where the poles will be adjacent to a county or city road franchise, new poles may be located on private property ranging from 2 to 7 feet outside of the road franchise, so the easement will be 2 to 7 feet on one side and 35 feet on the other. There may be some locations where the pole line may be located within the road franchise. A list of properties likely to require new easements and require acquisition is provided as Appendix H in the Revised PEA

The approximately 3-mile-long reconductoring segment is mostly within an existing 30- to 40-foot-wide easement. Easement documents may be updated in some locations to account for slight variations in the new alignment and pole placement, or to clarify or update existing rights. If PG&E discovers an encroachment in the existing 70 kV power line easement, it will determine whether it is a conflict with the operation of the line, and what action to take, if any, after further investigation. Such action might include working with the property owner(s) to remove the conflict or minor relocation of the alignment and potential modification of the structure type.

2.7.3 Future Distribution Facilities

Future distribution substation equipment will be located within the 70 kV substation, with three distribution feeders extending from the distribution transformer to connect with existing distribution lines located near the substation in existing franchise. A new 30-foot-wide easement, approximately 0.6 mile in length, will be obtained on private property to the north of the 70 kV substation to connect the future distribution facilities to existing distribution feeders on Mill Road.

2.8 CONSTRUCTION

Construction of the project components will proceed as described in the following subsections. Prior to initiating construction, the project proponents will contact the Underground Service Alert, also known as USA North 811, to identify underground utilities in the immediate area. A summary of the temporary disturbance areas and anticipated site preparation is provided in Table 2-2, Temporary Disturbance Area Summary.

Table 2-2. Temporary Disturbance Area Summary

Location	Anticipated Site Preparation	Total Approximate Area (acres)*
Estrella Substation		
Substation Work Area**	Vegetation removal and grading, including grape vines (and roots) and grasses.	6.2

Table 2-2. Temporary Disturbance Area Summary

Location	Anticipated Site Preparation	Total Approximate Area (acres)*
Power Line Route		
Pole Work Areas***	Vegetation removal and minor grading may be required.	44.4
Crossing Structure Work Area	Vegetation removal may be required.	1.1
Pull Sites	Vegetation removal may be required.	10.9
Access Roads	Existing unpaved roads may be improved within the existing road. Improvements include minor grading/blading and the placement of dirt and/or gravel. Overland access may require vegetation removal.	20.1
Staging Areas****	Vegetation removal may be required, temporary fencing and gates will be installed, gravel will be installed, and temporary power will be supplied by a distribution tap or generator.	35.3
Landing Zones	Sites will be leveled free of obstacles and debris.	1.4

Notes: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors. Construction of the telecommunications system extension will also be conducted within temporary disturbance areas identified.

* Acreage totals do not account for overlapping work areas and do not include the future distribution feeders. Construction of the future distribution feeders may require limited vegetation removal.

** Includes substation staging area.

*** Includes LSTs, TSPs, LDSPs, and existing and new distribution poles.

**** The primary staging area may be replaced with an approximately 10-acre staging area located on Paso Robles Municipal Airport property.

2.8.1 Temporary Work Areas

Temporary work areas to facilitate specific construction activities are described in the following discussions. During construction of the project, holes and excavation pits will be covered for safety reasons (such as by using a steel plate or solid piece of plywood to prevent wildlife from entering the hole and protect people from falls). Precise locations for temporary work areas will be determined as part of the final design and may be changed, as necessary, at the time of construction due to land use changes, unanticipated impacts, and other factors. Unless specified in the subsections that follow, all work areas will be accessed from adjacent paved roads, unpaved roads, or site-specific overland access routes. In some locations, work areas may be accessed by footpaths if conditions preclude the use of vehicles. Section 2.8.2, Project Access, provides a more detailed description of the planned project access to the various project components. Following construction, all sites will be restored as described in Section 2.8.4, Cleanup and Restoration.

2.8.1.1 Staging Areas

Four staging areas will serve as the main base of operations during project construction. The staging areas are summarized in Table 2-3, Potential Staging Area Summary. The Estrella Substation site will include two distinct staging areas during construction that will be used for receiving, staging, laydown areas, and construction worker parking. PG&E has preliminarily identified two additional areas for potential use during power line construction, including a primary staging area located in the center of the route. Staging areas may be relocated or adjusted as necessary at the time of construction due to land use changes, unanticipated impacts, and other factors. PG&E may also elect to use existing PG&E substations and other PG&E-owned facilities as staging areas.

Table 2-3. Potential Staging Area Summary

Potential Staging Area*	Estimate Total Size (acres)
Estrella Substation	
230 kV Substation Staging Area	1.0
70 kV Substation Staging Area	0.9
Power Line Route	
Golden Hill Industrial Park Staging Area***	34.8
Navajo Ave Staging Area****	0.5

Notes: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors.

* Construction of future distribution facilities is not expected to require additional staging areas, since the 70 kV substation will have been prepared for the facilities and distribution feeders follow existing roadways.

** The two staging areas for substation work will be located entirely within the approximately 15-acre Estrella Substation permanent disturbance area. Since this area will have already been graded for substation construction, no additional grading or site preparation will be required for the individual substation staging areas.

*** The primary staging area may be replaced with an approximately 10-acre staging area located on Paso Robles Municipal Airport property.

**** The area will either be used as a staging area or a helicopter landing zone, and may also be collocated with a stringing site.

Staging areas will be the assembly point for project personnel, as well as the location for temporary, portable bathroom facilities; equipment storage during off-work hours and weekends; materials storage; employee parking; office trailer staging; and a meeting area, as needed, for project management.

The substation staging areas will be the main base of operations during construction of the 230 kV and 70 kV substations. The staging area for the 230 kV substation will be located within the fenced portion of the 230 kV substation. The staging area for the 70 kV substation and the

230 kV interconnection will be located within the fenced portion of the 70 kV substation. The 70 kV staging area also will be used to support construction activities associated with the 230 kV interconnection. All construction equipment and vehicles associated with the substation will be parked within the substation work areas at the completion of each workday, where practical. If nighttime work is necessary in the work areas, temporary lighting will be situated and directed away from any adjacent residences.

The primary staging area for construction of the power line will be located along Golden Hill Road in a light-industrial park and will occupy approximately 10 acres. A fourth staging area is located at a former residential site that is now vacant (no structures) and is located within the reconductoring segment, adjacent to River Road. This staging area will total approximately 0.5 acre. Final staging area sizes will vary depending on negotiations with third-party property owners to establish the staging area's temporary construction easements. If not already provided, in-ground chain-link fencing will be installed around the perimeter of the staging areas for security purposes.

For work activities at the project substation site and the main staging sites, a temporary overhead service drop (tap) or an underground service (run) will be extended to the sites to provide power if existing distribution facilities are present. If a distribution service from nearby distribution lines is not feasible for the staging area sites, these areas could receive power from temporary, portable generators.

Preparation of the two main staging areas will take approximately 4 weeks to complete and will include the following actions and improvements:

- Site leveling and grading;
- Installation of temporary in-ground fencing (if not already present), including 6- to 8-foot-tall chain-link fence, with up to 2 feet of barbed wire around the perimeter of each staging area with locking gates to control access;
- Placement of gravel or equivalent material within staging area to control dust, sedimentation, equipment track-out, and prevention of stormwater runoff leaving the site during rain events;
- Installation of temporary power from portable generators and/or taps to existing distribution lines in the area; and,
- Installation of necessary construction office trailers, sanitary facilities, and storage buildings.

Prior to use, each staging area will be prepared to allow for the safe operation of construction equipment and vehicles. Because previously disturbed and flat areas will be selected as potential sites, it is anticipated that minimal grading or other preparation will be required. If the selected sites are not comprised of a solid earth or concrete/paved foundation, any weeds will be cleared.

2.8.1.2 Structure Work Areas

Structure work areas will be established at each new tower/pole that will be installed as part of the project. These work areas will be used to facilitate the tower/pole assembly, erection, and hardware assembly processes. They will also be used to support the conductor installation and/or removal processes. The final tower/pole locations will be determined when engineering is complete and, where feasible, will be adjusted to account for property owner preferences. Structure work areas may also be adjusted to accommodate the final tower/pole locations.

These work areas will typically be centered on the tower/pole location, and will vary in size depending on the type of tower/pole being installed. Typical work areas are about 100 by 100 feet for LDSPs, 150 by 150 feet for TSPs, and 200 by 200 feet for LSTs. These work areas may be cleared of vegetation and graded, if necessary, prior to their use. Some sites may also require tree trimming, tree removal, and/or vine removal. Work areas for existing distribution poles will typically be about 50 by 50 feet.

2.8.1.3 Crossing Structures

Prior to the installation of new conductors, temporary crossing structures—typically consisting of either vertical wood poles with crossarms or staged construction equipment—will be installed or mobilized at crossings of energized electric lines, communication facilities, and/or major roadways to prevent the conductors from sagging onto other lines or roads during removal or installation. To accommodate the installation of a crossing structure, PG&E will establish a work area measuring about 40 by 40 feet at each required crossing. Additional ground disturbance is not anticipated, but may be required in areas of steeper terrain. Preparation of the site will typically be limited to mowing vegetation, as needed, to minimize the risk of fire. Crossing locations will be determined during final design.

Netting may be used if required by a city, county, or state agency for crossing over roads. A crossing structure would be installed on both sides of the road and netting would be strung between the structures. When crossing SR-46, an additional structure may be needed in the median to help support the netting over the highway. PG&E will work with the appropriate regulatory agencies prior to the installation and construct it according to the encroachment permit requirements.

2.8.1.4 Pull and Tension Sites

Pull and tension sites, also known as stringing sites, will be used to install conductor on support structures. Conductor installation activities at stringing sites will include pull and tension equipment staging, temporary pole anchor installation, and pulling and tensioning of the conductor. In addition, selected pull sites may provide the necessary work area needed for telecom-related activities. Specific pull-site locations will be determined during final project design.

Pull sites will typically be located within the power line easement and can be spaced between 0.5 and 1 mile apart. In locations where pulling will be required through an angle, or at the start of a new direction of the alignment, the pull site may be located at an angle outside the easement or off the end of an easement corner. Pull sites will typically be 70 feet wide and will range between approximately 120 and 150 feet long. Each stringing site will require about 0.25 acre.

Typical equipment required for pull and tension sites includes pullers, tensioners, cranes, crawlers, water trucks, crew cab trucks, and pickup trucks. Construction crews will access pull and tension sites using rubber tire mounted trucks. Access may be required throughout the easement, away from structure work areas and pull sites, to support pull and tension activities.

All pull sites located outside of paved areas may require vegetation trimming/removal to minimize the risk of fire and, depending on the local terrain, some minor grading may be required to ensure a flat and safe work environment. Depending on the time of year and field conditions at the time of construction, gravel may be applied to help stabilize the ground for equipment use.

Conductor and cable stringing operations will occur project wide and typically begin with installation of travelers or "rollers" using bucket trucks. Following installation of the rollers, a sock line (a small cable used to pull the conductor) is pulled onto the rollers from structure to structure. Necessary guard structures will be installed to protect any power line crossings along the work path. Once in place, the sock line is attached to pull or "string" the conductor into place on the rollers using conventional tractor-trailer pulling equipment located at the pull and tension sites along the line route.

Once the conductor is pulled to a pre-calculated tension, the conductor is then clipped into the end of each insulator, the rollers are removed, and vibration dampers or other accessories are installed. The anticipated maximum distance for any "wire pull" may be 3.2 miles of conductor line; however, many pull sections along the route will traverse less distance.

2.8.1.5 Landing Zones

Landing zones may be used during construction for the staging, storage, refueling, and operation of helicopters during construction. The location of these landing zones may change depending on site conditions at the time of construction, and alternative sites that could serve as landing zones have been identified. Other sites within the project area could also serve as landing zones, if needed. Six landing zones have been preliminarily identified for use during the project:

- Landing Zone 1: Paso Robles Municipal Airport;
- Landing Zone 2: Estrella Substation site, south of existing temporary worker residence adjacent to Union Road;
- Landing Zone 3: New 70 kV power line segment site north of Golden Hill Road (may be collocated with a stringing site);
- Landing Zone 4: New 70 kV power line segment site south of Buena Vista Drive;
- Landing Zone 5: Reconductoring segment site west of Palo Alto Court (may be used as a staging area instead and may be collocated with a stringing site); and,
- Landing Zone 6: Reconductoring segment site west of Navajo Avenue (may be collocated with a stringing site).

The two non-airport landing zones will measure about 100 by 100 feet, with a 30- by 30-foot touchdown pad area. Because the identified landing zones are comprised of an airport and two disturbed areas within the project area, these landing zones will not require extensive preparation. A more detailed description of helicopter use during construction is provided in Section 2.8.2.3, Helicopter Access.

2.8.2 Project Access

Construction crews, materials, and equipment will primarily access the project site by using SR-46, and by either traveling along Union Road, Golden Hill Road, or North River Road. In addition to using a system of existing roads, project proponents may also grade or mow new temporary unpaved roads, or travel overland to provide access to Estrella Substation and/or pole locations along the new 70 kV power line and reconductoring segments. Access to the work sites for workers and equipment will occur using rubber tire-mounted vehicles.

Some poles may also be accessed on foot if sensitive resources preclude the use of heavy equipment. For roads that require improvements for access and equipment delivery, grading could be conducted, if necessary, followed by the addition of temporary rock bedding. Equipment required for this work may include a grader, dump truck for gravel delivery, and a loader or tractor to spread rock.

Minor adjustments to access may be necessary at the time of construction due to land use changes, unanticipated impacts, and other factors. Work along the new 70 kV power line segment will occur from the road shoulder, where feasible. As a result, access roads will not be required in these locations.

An overview of the access roads that are currently planned to be used during the construction of the project is provided in Table 2-4, Project Access Summary. Additional access requirements by project component are described in the subsections that follow.

Table 2-4. Project Access Summary

Type of Road	Project Component to be Accessed*	Road Surface/ Improvements	Approximate Width (feet)	Approximate Length (feet)	Total Approximate Area (acres)**
Existing Paved	Estrella Substation	No access improvements will be required.	0	0	0
	Power Line Route		15	15,200	5.4
Existing Unpaved	Estrella Substation	Unpaved roads may be improved within the existing road prism. Improvements may include minor grading/blading and the placement of dirt and/or gravel.	0	0	0
	Power Line Route		15	33,000	11.1
New Permanent	Estrella Substation	Paved main access road and paved or graveled interior access roads	20	2,350	2.2
	Power Line Route		0	0	0

Table 2-4. Project Access Summary

Type of Road	Project Component to be Accessed*	Road Surface/ Improvements	Approximate Width (feet)	Approximate Length (feet)	Total Approximate Area (acres)**
Overland Route	Estrella Substation	Vegetation removal may occur as necessary for fire-prevention purposes.	0	0	0
	Power Line Route		12***	12,700	4.5

Note: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors. Access to the staging yards/landing zones have been included in the project component that the site is designed to support.

* Construction of future distribution facilities is not expected to require additional access, since the 70 kV substation will have access and distribution feeders follow existing roadways.

** Acreage totals do not account for overlapping work areas.

*** Overland routes will generally be approximately 12 feet wide, but may be expanded to approximately 15 feet around corners to allow safe access for construction equipment.

2.8.2.1 Estrella Substation

Permanent and construction access to the proposed substations will be immediately off Union Road on a new private access road. The main access road will be paved and measure about 1,100 feet long and about 20 feet wide. Interior roads within Estrella Substation will measure, in total, approximately 1,250 feet long and about 16 feet wide.

Construction access for the proposed 230 kV interconnection will occur using the same access route being used for substation construction. It is anticipated that access from the substation to the existing 230 kV transmission line will occur using PG&E's existing utility easement, immediately adjacent to the Estrella Substation property boundary. Depending on final engineering design of the 230 kV transmission interconnection, additional easements may be required.

2.8.2.2 Power Line Components

Access to the new 70 kV power line segment will be provided by paved public roads, where feasible. Existing unpaved, private access roads and driveways, and overland access routes, will be used to supplement the existing paved roads.

The reconductoring segment is located generally parallel to North River Road; however, due to the terrain in the area, direct access from North River Road is limited in some areas. As a result, crews will access this segment by utilizing existing paved, private access roads and driveways. Additional unpaved, private access roads and driveways, and overland access routes, will also be used. It is anticipated that overland foot travel also will be used to access the required construction areas.

2.8.2.3 Helicopter Access

Light-duty and medium-duty helicopters with a maximum payload capacity of approximately 4,000 and 10,000 pounds may be used to assist with the installation of new poles in areas along the power line where limited access or local terrain conditions prohibit the work from being conducted by ground-based crews and equipment. A helicopter may also be used during conductor installation and removal activities. It is anticipated that only one helicopter will be used at any one time.

As described in Section 2.8.1.5, Landing Zones, up to six landing zones will be established as needed for the staging and refueling of the helicopters. Typical helicopter payloads will include, but not be limited to, poles, sock lines, power line hardware, crewmembers, and equipment. Use of staging areas for landing zones will be confirmed during final design and are dependent on final pole locations, pole type and size, and available site access. Refueling activities will occur only at the Paso Robles Municipal Airport.

Flight paths for helicopters will be from the Paso Robles Municipal Airport, and will generally extend directly to and along the power line easement. Helicopter operation will be planned to avoid sensitive receptors. Hours of operations for helicopters will generally be the same as those for construction, 7:00 a.m. to 5:30 p.m., Monday through Friday, and will include Saturdays when needed. In some cases, residents may need to relocate from their home temporarily during helicopter activities. Additionally, helicopter use will be in accordance with all applicable federal, state, and local aviation rules and regulations.

Within the new 70 kV power line segment, several poles may be hand dug and helicoptered in. Within the reconductoring segment, up to 10 poles may be hand dug and/or helicoptered in. The project proponents will implement best management practices to reduce potential impacts to air quality, hazards and hazardous materials, and noise. For example, helicopter flight paths generally will be limited to the existing power line easement and project-specific landing zones. Additionally, helicopter use will be in accordance with all applicable federal, state, and local aviation rules and regulations.

2.8.3 Vegetation Clearance

Construction of Estrella Substation will result in the permanent removal of approximately 15 acres of grape vines. Another acre may be permanently disturbed to construct the power line.

Existing vegetation may need to be temporarily cleared or mowed to establish access roads and routes, as well as clear staging areas, landing zones, and work areas for construction activities. Much of this vegetation is in previously disturbed areas. Mowers, excavators, front-end loaders, and bulldozers will be used to clear these sites. During clearing activities for temporary disturbance areas, vegetation will be mowed or grubbed, leaving root systems intact wherever possible to encourage resprouting and to minimize erosion. Brush and shrubs cleared during construction may be disposed of at an approved organics processing facility in the project vicinity or chipped and left on-site.[6]

Temporary or permanent impacts to oak trees may occur from tree trimming/vegetation removal activities required under G.O. 95, Section III to maintain minimum clearances required and to prevent dead, rotten, or diseased portions of otherwise healthy trees from falling onto a power line. Additionally, Section 10.01.065 of the City of El Paso de Robles' (City) Oak Tree Ordinance (Ordinance No. 835 N.S.) permits oak tree trimming by public utilities subject to the jurisdiction of CPUC, as necessary, to maintain a safe operation for facilities.

Construction of the project will involve ground-disturbing activities, including grading and vegetation clearing. As a result of these activities, which will total more than 1 acre, the project proponents will obtain coverage under the State Water Resources Control Board (SWRCB) General Permit for Storm Water Discharges Associated with Construction Activity Order No. 2009-0009-DWQ. To obtain coverage under the permit, the project proponents will develop and submit Permit Registration Documents—including a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), a risk assessment, a site map, certification, and an annual fee—to SWRCB prior to initiating construction activities.

In conjunction with the SWPPP, appropriate best management practices will be developed for each activity that has the potential to degrade surrounding water quality through erosion, sediment run-off, and other pollutants. These best management practices will then be implemented and monitored throughout construction of the project by a Qualified SWPPP Practitioner.

Small, temporary stockpiles of excavated dirt may be located near excavations for the power line structures and/or their foundations. This excavated material will be used, as appropriate, for backfilling voids left by the removal of guard structures, old power line poles, and old distribution poles. Sediment control best management practices, such as the use of fiber rolls around stockpiles and excavated areas, will be implemented to manage the temporary stockpiles.

Construction debris will be transported to a staging area or PG&E Service Center, as needed, for recycling or disposal. Wood poles removed for the project will either be taken to a staging area or area Service Center collection bin for transport with other materials for disposal to a licensed Class 1 landfill or a composite-lined portion of a solid waste landfill, or reused if the poles meet pre-established criteria for reuse. PG&E would comply with all laws and regulations regarding the disposal of the existing wood poles.

Estrella Substation will be designed to maintain existing drainage patterns and will include erosion control design measures for site stabilization. Drainage and erosion control design measures include installation of a culvert under the proposed site access road along Union Road to allow drainage, erosion control blankets, and rip rap. The SWPPP will include measures to limit erosion and off-site transport of pollutants from construction activities. The SWPPP will identify best management practices that will be followed during construction to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant transport. No dewatering is

[6] Paso Robles Waste & Recycle has been identified as a potential disposal facility for brush and other cleared vegetation.

anticipated during construction of the substation, as the project boundary area does not contain any existing water feature.

During construction, petroleum-based products such as gasoline, diesel fuel, crankcase oil, lubricants, and cleaning solvents will be used to fuel, lubricate, and clean vehicles and equipment, and will be transported in specialty trucks or in other approved containers. When not in use, hazardous materials will be properly stored to prevent drainage or accidents. Additionally, appropriate best management practices will be implemented to minimize the effects of an accidental spill, such as the presence of spill kits in active work areas, to prevent materials from draining onto the ground or into drainage areas. Proper procedures describing hazardous material use, transport, storage, management, and disposal protocols will be identified and implemented in a Hazardous Materials and Waste Management Plan prior to the commencement of construction activities. An SPCC Plan will be required for the 230 kV substation, in accordance with federal regulations, and will address the project spill prevention and containment design measures and practices.

2.8.4 Cleanup and Restoration

Surplus material, equipment, and construction debris will be removed at the completion of construction activities. All man-made construction debris will be removed and recycled or disposed of at permitted landfill sites, as appropriate. Cleared trees will be chipped and stored for later use during site restoration, left on the property owner's site, or disposed of off-site, depending on landowner and agency agreements.

All areas temporarily disturbed by the project will be restored to the extent practicable, following construction. These disturbed areas include staging areas and access roads, areas around each tower/pole, and areas used for conductor stringing and staging. Post-construction restoration activities will include returning areas to their original contours and drainage patterns in accordance with SWPPP best management practices and as prearranged landowner agreements, where applicable.

All temporarily disturbed areas within and around Estrella Substation will be restored to the extent necessary for safe operation. All construction waste will be disposed of in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste disposal through transport to an authorized landfill.

2.8.5 Substation Construction

2.8.5.1 Substation Grading and Site Preparation

Construction of the substation will follow a typical sequence beginning with survey marking of staging areas and work areas, establishment of the private access road, vegetation clearance, fencing installation, grading, installation of culverts and swales, excavation of foundations, installation of facilities, and cleanup and post-construction restoration. Vegetation removal will be limited to areas within survey-marked boundaries, and will be completed utilizing mechanized equipment. To the extent practical, removed vegetation may be diverted for landfill disposal. Site construction fencing will be installed during the site preparation stage, and will require digging to a depth of 4 feet to install fencing anchors.

Based on preliminary grading design, earthwork activities for the substation are anticipated to result in approximately to 50,000 cubic yards of cut and fill, balanced on-site. Generally, grading and excavation for the project will be accomplished in a phased approach. Earthwork activities (e.g., grading, excavation) will be completed to meet project design specifications and match proposed grades, and consider the geotechnical conditions at the site. Maximum excavation depths will occur on the transmission portion of the site and at the steel dead-end structures in the 230 kV substation.

Geotechnical borings were performed in the vicinity of the substation site. The borings showed predominately gravel, clay sand and decomposed granite, which can be excavated. It is anticipated that these materials can be excavated using conventional earth-moving equipment. While not expected due to the clay soil, in the event there are areas where bulldozers and backhoes are not able to remove the material, scraping, ripping, drilling, hammering, and cutting may be used to break up the material into manageable pieces. Blasting is not anticipated.

During earthwork, soils and other surficial deposits that do not possess sufficient strength and stability, and/or resistance to erosion to support structures, will be removed from the work area. No contaminated soils are expected on this site due to the long-term vineyard use of the site. All clean spoils excavated for the project will be used on-site to balance cut and fill calculations, as feasible. All spoils that are not useable and/or contaminated will be sent to a properly licensed landfill facility. All recyclables will be taken to a licensed recycle facility, and all refuse will be taken to the Paso Robles Landfill or other suitable landfill facility.

Material that requires processing for construction of Estrella Substation will be mechanically processed on-site to achieve a maximum particle size and distribution suitable for conventional placement in engineered fills. In addition to general earth-moving quantities, approximately 6 inches of surface gravel will be required to be imported and installed within the substation footprint and along the access road. Additionally, gravel will be placed in the substation staging areas.

2.8.5.2 Below-Ground Construction

Following site preparation, construction of the substation equipment foundations (consisting of drilled pier, mat, and pad type foundations), underground ducts, and the grounding grid will commence. Foundation construction excavation will be accomplished primarily by backhoes and drill rigs. Forms, reinforcing steel, and concrete will then be installed, as appropriate, to build the foundations for substation equipment and the control enclosures. Structure and equipment foundations will be excavated to an approximate depth of between 10 and 25 feet. Actual depths will depend on the equipment to be installed. Concrete pouring will be required to construct the foundations. Underground bundled polyvinyl chloride (PVC) conduit ducts will be constructed within the substation pad for the control circuits.

2.8.5.3 Above-Ground Construction

Power lines and distribution circuits will be connected inside the substation after substation structures and equipment are installed. Control and protection wiring will be completed during above-ground structure installation. All equipment will be tested after installation and wiring, and before placing the substation in service. Equipment will be placed in service once individual power lines and circuits are ready to be energized and have been tested outside the substation.

It is anticipated that all major electrical and substation equipment will be delivered to each substation site and placed directly on constructed concrete foundations and footings. Once all footings have cured, all equipment will be anchored into final position, and wiring, controls, and protective devices will be installed. All new components will be delivered to the site using a flatbed truck and positioned using a small crane. Equipment testing will be performed following the completion of the control enclosures and the installation of the relay panels, controls, batteries, and AC system.

2.8.5.4 Access Driveway and Interior Road Construction

Access road construction will begin by excavating a maximal depth of 7 feet at the intersection with Union Road, tapering off to 2 feet deep for the remainder of the road. Next, the road will be graded and compacted in accordance with engineering standards and the geotechnical requirements. Following compaction, road base will be imported, distributed on-site, and compacted. Finally, conventional paving equipment will be used to distribute the asphalt road material along the main access route and driveways. It is assumed that paving of the access road will occur after major construction at the substation site is completed.

2.8.5.5 230 kV Transmission Interconnection Construction

Installation of the 230 kV transmission interconnection to Estrella Substation will require a number of activities including setting the two new towers, foundations, tower assembly, and partial erection for the new towers. Construction activities will include the following:

- Adjacent to the new 230 kV substation, a temporary connection (commonly referred to as a "shoo-fly") will be installed to ensure that the existing 230 kV transmission line remains in service. Near the existing tap structures at each location, one to three (depending on the orientation of the conductor wires) wood poles will be placed in the ground without foundation and guy-wired for stability. The temporary structures will connect the conductors as necessary for the existing 230 kV transmission line to remain in service.
- Clear the first circuit on the existing double-circuit 230 kV transmission line, and move the phase conductors off the two existing LSTs onto the temporary poles. Re-energize the first circuit.
- Clear the second circuit on the existing double-circuit 230 kV transmission line, and complete the erection and interset of two new LSTs. Dead-end the phase conductors for the circuit and install temporary jumpers.
- Secure the OPGW at each new tower, remove an existing LST, and install two LSTs for the Estrella Substation interconnection.
- Re-energize the second circuit and clear the first circuit on the existing 230 kV transmission line. Transfer the existing phase conductors from the temporary poles to the new towers. Dead-end the phase conductors on the new towers and install permanent jumpers, reattach the phase conductors, and re-energize the first circuit.

- Remove the temporary poles and anchors used for the shoo-fly.

The 230 kV interconnection LSTs will be installed on concrete pier foundations. Large augers and drill rigs will complete the required excavations and, if necessary, a reinforcing steel rebar cage will then be lowered into the excavation. An approximately 2-foot-tall form will be constructed. Concrete will then be poured to fill the excavation. Each completed foundation will be left to cure for 7 to 14 days. Typical foundation dimensions for the 230 kV interconnection are included in Table 2-5, 230 kV Interconnection Structure Foundation Summary.

Table 2-5. 230 kV Interconnection Structure Foundation Summary

Foundation Type	Quantity	Approximate Diameter (feet)	Approximate Depth (feet)	Approximate Excavation Volume* (cubic yards)	Approximate Concrete Volume* (cubic yards)
230 kV Lattice Steel Tower	6	3–4	13–16	2.6–6.1	3.4–7.4

* Volumes are per structure.

Each LST is comprised of multiple steel members that are connected together with hardware to form the tower. Installation of the tower will begin with the assembly of the tower in one or more sections. This assembly process may occur at one of the staging areas or within the work area at the tower's location. Once the first section of the tower is complete, it will be placed onto the cured concrete foundation using cranes and secured using the appropriate hardware. This process will be repeated for any additional sections of the tower until it is complete. Insulators and additional hardware will be added to the tower using a bucket truck and cranes. In areas of difficult terrain, a helicopter may be used to assist with the tower installation process. If applicable, the existing conductor will then be attached to the new tower hardware.

As part of the 230 kV interconnection work, an existing LST will be removed and then replaced by a new LST in a slightly different location. The LST will be removed by disassembling the tower into three sections and lowering each section using a crane, or taking it down in one lift using a crane. Helicopters may be used to assist in the tower removal process. Following disassembly of the tower, its segments will be transported for reuse, recycling, or disposal at an approved facility. Once the LST has been removed, the associated concrete pier foundations will be jackhammered to approximately 3 feet below grade. All debris located near the vicinity of the foundations will be removed from the site and will be recycled or disposed of at an approved disposal facility. The remaining void will then be backfilled with native soil saved from other excavations in the surrounding area and returned to its original contours, to the extent possible/feasible or in accordance with prearranged landowner agreements, where applicable.

2.8.5.6 Telecommunications and Power Interconnection Construction

For the 230 kV substation, the back-up electric power source and telecommunication lines will be brought to the site either on overhead distribution poles or in underground conduits. If overhead, up to six wood poles (distribution poles, approximately 30 feet tall) may be constructed within the substation permanent disturbance area. The poles will be direct embedded up to approximately 6 feet. If undergrounded, the back-up power and communications could be brought into the 230 kV substation in up to three underground conduits. Open trenching and/or horizontal directional drilling (HDD) may be used to install the conduits for power and communications cables. Any directional drilling pits will occur within the permanent or temporary disturbance areas. Depending on the voltage level and distance from the PG&E distribution line, either a pole-mounted transformer (on a PG&E pole) along the existing distribution line that intersects the utility corridor or a pad-mounted transformer located adjacent to the control enclosure will be installed.

For the 70 kV substation, the OPGW cable will be cut at the existing LST that is to be removed. The OPGW cable will then be rolled back to the first LST located both northeast and southwest from where the cable is to be cut. The cable will then extend down a tower leg at each of the towers and enter into a pull box. The pull boxes located near the bases of the existing towers and pull boxes installed near the fence line of the substation will be connected by underground conduit. The OPGW cable will transition on the tower legs to an underground fiber optic duct cable and then travel through 4-inch PVC conduit until terminating inside the 70 kV substation control house. Approximately 3,000 feet of new 4-inch conduit will be installed to complete the telecommunications system extension.

The installation process for the underground portion of the telecommunications system extension is described in the subsections that follow. The conduit will be installed using open trenching methods of construction, HDD techniques, or a combination of the two. The actual method of installation will be determined during final design.

Open Trench Method

Excavators and other earth-moving equipment will be used to establish trenches for telecommunication lines, which typically range between 36 and 60 inches in depth, and 24 and 36 inches wide. Depths may vary depending on soil stability and the presence of existing substructures and discussions with adjacent property owner/farmer.

Once a trench is excavated, large diameter gravel will be applied to the bottom of the trench to create a level bed for the conduit and act as a French drain. PVC conduit will then be placed in the trench and a granular substrate (typically sand) level will then be layered around the conduits for additional protection and stability. The excavated material will be used to backfill the remainder of the trench. During backfill operations, "warning tape" will be placed at least 12 inches above the conduit. Once the trench is backfilled, the area will be compacted using portable compaction devices.

Horizontal Directional Drilling Installation

HDD is a highly specialized boring technique that may be used to install conduits beneath the existing vineyards in the vicinity of the telecommunications system extension. The HDD technology uses a hydraulically powered horizontal drilling rig supported by a drilling mud tank and a power unit for the hydraulic pumps and mud pumps. A variable-angle drilling unit will initially be adjusted to the proper design angle for the particular drill.

The first step will be to drill a fluid-filled pilot bore. The first and smallest of the cutting heads will begin the pilot hole at the surveyed entry point in the entry pit. The first section of the drill stem has an articulating joint near the drill-cutting head that the HDD operator can control. Successive drill stem sections will be added as the drill head bores along the specified route. The drill head will then be articulated slightly by the operator to follow a designed path under the crossing and climb upward toward the exit point. Once the pilot hole is completed, a succession of larger cutting heads and reamers will be pushed and pulled through the borehole until it is the appropriate size for the 4-inch conduit. Using this method, the conduit will be installed up to 10 feet under the existing grade.

An entry pit and an exit pit are required for each HDD to contain the drilling mud. In general, the work area required on both the entry and exit sites will be approximately 50 by 50 feet. A non-toxic, water-based lubricant containing water and bentonite clay, referred to as drilling mud, will be used to aid the drilling, coat the walls of the borehole, and maintain the opening. During the bore, drilling mud will be pumped under high pressure through the drill stem to rotate the cutting head and return the soil cuttings to a pit at the surface entry point. No additives considered hazardous according to federal and state laws will be used during the HDD process. The drilling mud will be received in an approximately 6- by 6-foot pit.

The drilling mud returned back through the bore-drilled hole will be pumped from the entry and exit pits to a processing/shaker unit where the soil cuttings are removed, allowing the drilling mud to be reused. It is anticipated that the majority of the drilling mud will be recycled by the drilling contractors and used on subsequent projects. Any excess clean drilling mud will be disposed of at an appropriate waste facility.

Once the borehole reaches the correct diameter, the conduit will be pulled through the borehole until it surfaces on the other side. The installed conduit will then be connected to adjacent splice boxes and/or other sections of conduit, and the entry and exit pits will be backfilled.

As part of the drilling design process, a geotechnical survey of subsurface conditions was conducted to determine the underlying geologic strata along the bore path. Infrequently, the geologic strata above the bore may be weaker than anticipated and/or unconsolidated. As the HDD passes under these locations, the high pressure of the drilling mud may result in a fracture of these strata, allowing drilling mud to rise to the surface. This situation is termed a "frac-out" and is usually resolved by reducing the mud system pressure or increasing the mud viscosity. If a frac-out occurs, the boring operation will be stopped immediately, and the following plan of action will be implemented:

- Isolate the area with straw bales, sand bags, or silt fencing to surround and contain the drilling mud.
- Remove the drilling mud using one of the two following methods based on the location and volume of mud leaching from the frac-out hole:
    (1) A mobile vacuum truck will be used to pump the drilling mud from the contained area. If the vacuum truck does not have a hose of the appropriate length, a series of one or more gasoline- or diesel-powered pumps may be connected to the vacuum truck to extend its reach. Each pump will be placed in a plastic tub or other form of containment.

(2) The drilling mud will be removed with hand tools if a frac-out is small.

In order to facilitate the pulling and splicing of the cables, an underground pull/splice box will be installed at the base of an existing or newly installed structure. All pull/splice boxes used for the project will be pre-cast polymer concrete and traffic-rated boxes, measuring approximately 3 by 5 feet, as shown in in Figure 2-12, Typical Pull/Splice Box. These splice boxes will provide access during operations to the underground cables for maintenance, inspection, and repair.

An excavator or backhoe will be used to excavate a 5-foot-deep cavity near the base of the pull/splice box, measuring approximately 4 by 6 feet. The pull/splice box will be delivered to the project site on a flatbed truck and lowered into place using a small truck-mounted crane. The pull/splice box will then be connected to the underground conduits before being covered with at least 2.5 feet of compacted fill. The area around the pull/splice box will be restored with native soil saved from the initial excavation.

After installation of the conduit, the project proponents will install the communication cable in the conduits. Each cable segment will be pulled into the conduit, spliced at each splice box, and terminated at the transition where the lines convert to overhead. To pull the cable through the conduit, a cable reel will be placed at one end of the section and a pulling rig will be placed at the other end. A large rope will then be pulled into the conduit using a fish line, and attached to the cable-pulling eyes. The cable-pulling eyes will then be attached to the cable and the cable is then pulled through the conduit. A lubricant will be applied to the cable as it enters the conduit to decrease friction during pulling.

2.8.6 Power Line Construction

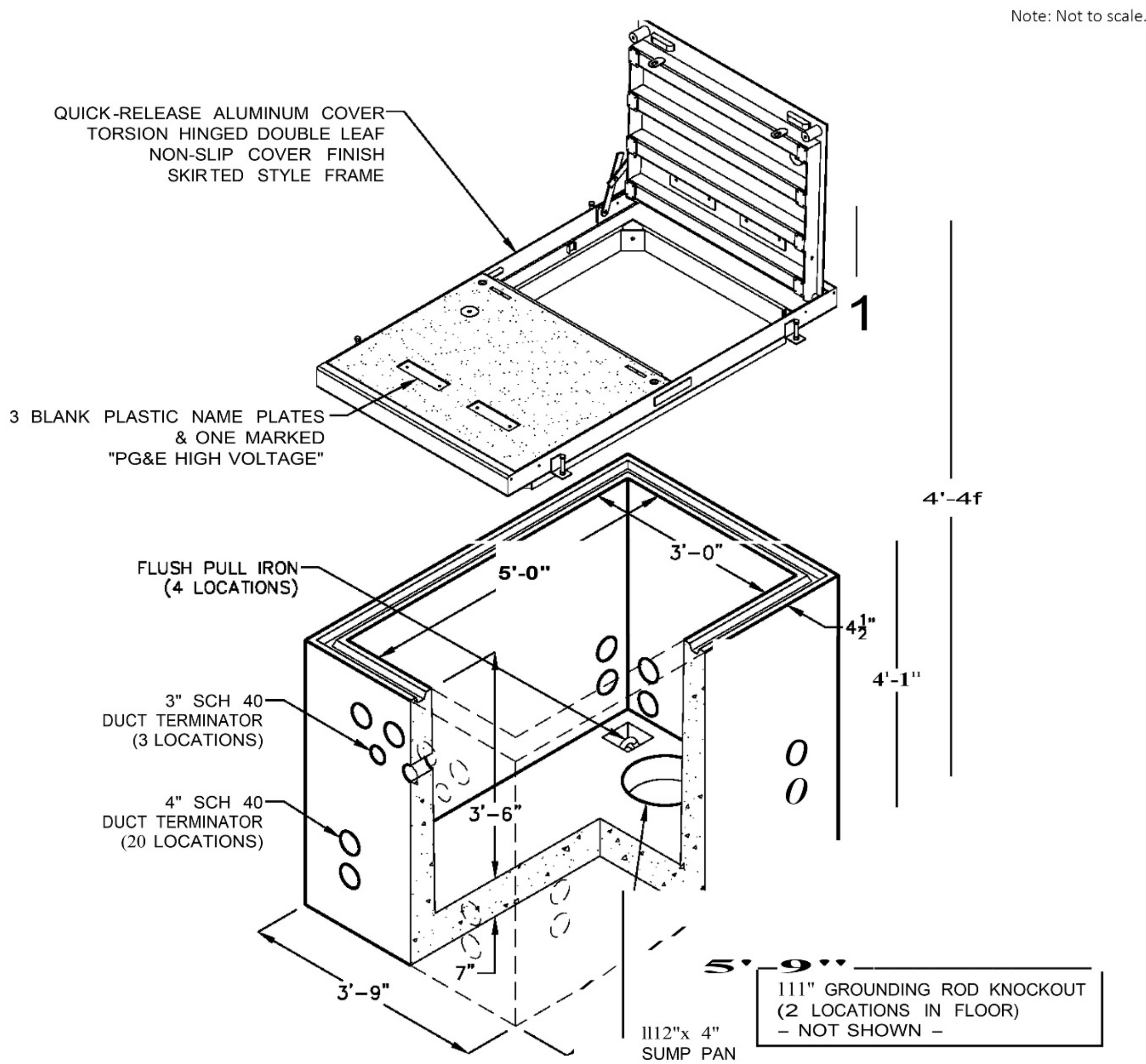
Power line installation will begin with the clearing of the work areas at the location of each structure using a mower and/or backhoe. If necessary, minor grading may be conducted to develop a flat, safe area.

2.8.6.1 Crossing Structure Installation

Crossing structures will be installed to protect existing roadways and other facilities from sagging conductors during construction. PG&E will auger an approximately 2-foot-diameter, 8-foot-deep hole within each crossing structure work area to facilitate the crossing structure installation. The temporary wood poles will then be placed in the excavations by using a small crane, line truck, or loader, and secured by backfilling and compacting the excavated material into the remaining void. In areas where crossing protection may be short in duration or of low risk, equipment (e.g., line trucks or cranes) may be used in place of crossing structures to shield the crossing from potentially sagging conductors. Crossing structures may also be mounted on line trucks rather than in the ground.

Netting may be used if required for crossing over major roads. A crossing structure would be installed on both sides of the road and netting would be strung between the structures. When crossing SR-46, an additional structure may be needed in the median to help support the netting over the highway. The crossing structure will be installed according to encroachment permit requirements.

Figure 2-12. Typical Pull/Splice Box



2.8.6.2 Power Line Structure Installation

The 70 kV TSPs will be installed on concrete pier foundations. Large augers and drill rigs will complete the required excavations and, if necessary, a reinforcing steel rebar cage will then be lowered into the excavation. An approximately 2-foot-tall form will be constructed, and concrete will then be poured to fill the excavation. Each completed foundation will be left to cure for 7 to 14 days. Typical power line structure foundation dimensions are included in Table 2-6, Power Line Route Structure Foundation Summary.

Table 2-6. Power Line Route Structure Foundation Summary

Foundation Type	Quantity	Approximate Diameter (feet)	Approximate Depth (feet)	Approximate Excavation Volume* (cubic yards)	Approximate Concrete Volume* (cubic yards)
70 kV Light Duty Steel Pole	110	3	12–20	3.1–5.2	0
70 kV Tubular Steel Pole	47	4.5–5.0	16.5–18.0	7.9–10.9	9.7–13.1

* Volumes are per structure.

Typical equipment used for power pole installation includes truck-mounted augers and drills to excavate the holes. When foundations are needed, concrete trucks supply and pour concrete into installed holes. Cranes are used to lift and place new poles/towers into the newly installed holes or foundations. Cranes and/or bucket trucks lift workers into elevated positions to work on newly installed poles or towers. Crew cab and pickup trucks are used to transport workers and tools to each installation site. Water trucks and portable water tanks are used to minimize fugitive dust during excavation and restoration activities.

New TSPs, along with crossarms, insulators, and hardware, will be delivered to structure sites in two or more sections using a flatbed truck and assembled on-site. The crossarms will be attached, the pole will be placed onto the cured concrete and anchor bolt foundation using cranes, and the pole will be secured using the appropriate hardware. If the pole is delivered in multiple segments due to access restrictions or other engineering considerations, the segments will be placed in order and secured using hardware. In areas of difficult terrain, poles may be delivered and assembled on their foundations using a helicopter. Once the pole is installed, additional hardware will be added to the crossarms using a bucket truck. If applicable, the existing conductor will then be attached to the new TSP hardware. Excess soils will be removed to staging area and then covered, tested, and disposed of as required.

Similar to TSPs, LDSPs, as well as crossarms, insulators, hardware, and any wood poles, will be delivered to structure sites in flatbed trucks. The LDSPs will be embedded directly into the ground and will not require a separate concrete foundation. Installation includes excavation of an up to 3-foot-diameter, 12- to 20-foot-deep hole. Following the excavation process, the poles, insulators, and hardware will be assembled. The poles will then be placed into the excavated hole using line trucks or cranes, the remaining void will be backfilled, and the backfill area will be compacted using portable compacting machinery. Once the pole is embedded and the backfill area is compacted, additional hardware may be added to the pole using a bucket truck. If applicable, the existing distribution conductor will then be attached to the new LDSP hardware.

2.8.6.3 Existing Structure Removal

Following the transfer of the existing distribution and 70 kV conductors to the new poles along the reconductoring segment or transfer of the existing distribution line to the new 70 kV power line segment poles, crews will remove existing distribution[7] and power line poles and hardware using cranes, aerial man lifts, and/or helicopters. In the new 70 kV power line segment, approximately 40 existing distribution poles will be removed. In the reconductoring segment, approximately 50 power line poles will be replaced and about 12 existing distribution poles will be removed or replaced. Old wood poles will simply be lifted out of the ground using mechanical equipment. Removal of steel poles will occur by excavating an area around the pole to a depth of approximately 2 to 4 feet, or deeper if requested by private property owners. The pole will then be cut off and the remaining base will be buried in place.

All removed poles will be transported off-site to the staging area or to the PG&E Service Center for reuse evaluation. Bases of the poles will then be removed by excavating the area around the base. The remaining void will then be backfilled with native soil saved from other excavations in the surrounding area. The site will be returned, as near as practicable, to its original contours (or in accordance with prearranged landowner agreements, where applicable).

2.8.6.4 Electric Distribution Line Outages

During construction, sections of distribution lines that will cross the project or will be collocated on the new 70 kV power line segment may be temporarily taken out of service. As part of its normal operating procedures, PG&E's Distribution System Operations group will coordinate taking the distribution lines out of service (i.e., taking a clearance). The Distribution System Operations group will assess how to accomplish the clearances, identify where and when clearances may occur, notify customers being served by the distribution line that power outages could occur, manage the clearances, and retain balance in the system by routing power to minimize customer outages.

To accomplish the clearances and maintain balance in the system, the Distribution System Operations group must operate switches at locations along the distribution lines being taken out of service, or along other distribution lines that may be affected by taking a line out of service. Sometimes the switches are thrown at a central location such as a substation, and sometimes switches are operated remotely by System Operations. Other times, the System Operations team must physically drive to a field location and operate the switch manually. Because switches are often located above ground-level on distribution poles, bucket trucks are used to enable a worker to reach the switches. Operating a switch takes a matter of minutes and the worker will return to other work once the switching is completed. These distribution-switching activities take place

[7] Distribution pole removal, including removal of idle facilities, is preliminary and subject to change based on CPUC requirements, final engineering, and other factors.

throughout PG&E's service territory and are an integral part of PG&E's ongoing operational activities.

2.8.6.5 Conductor Installation

The new pole line conductor installation process will begin by temporarily attaching sheaves and rollers to the lower end of the insulators to allow the conductor to be pulled along the line. A rope will then be pulled through the rollers from structure to structure. This may be accomplished using a helicopter in instances where terrain is difficult, or the use of a bucket truck or aerial man lift is not feasible. Once the rope is in place, it will be attached to a steel cable and pulled back through the sheaves. The conductor will then be attached to the steel cable and pulled back through the sheaves and into place using conventional tractor-trailer pulling equipment located within one of the substations or within designated pull sites located along the alignments. The pulling through each structure will be done under a controlled tension to keep the conductor elevated and away from obstacles.

The reconductoring installation process will begin by temporarily attaching sheaves and rollers to the lower end of the insulators, and putting the old conductor into the roller. The new conductor will then be attached to the old conductor and pulled through the sheaves and into place using conventional tractor-trailer pulling equipment located within one of the substations or within designated pull sites located along the alignments. The pulling through each structure will be done under a controlled tension to keep the conductor elevated and away from obstacles.

After the new conductor has been pulled into place, the sag between the structures will be adjusted to a pre-calculated tension. The conductor will then be attached to the end of each insulator, the sheaves will be removed, and vibration dampers and other hardware accessories will be installed. The existing 12 kV distribution line will be transferred from the existing poles to new poles, where applicable. Old line will be removed from the sites on a line truck with trailer.

2.8.7 Future Distribution Facilities

Installation of a future 70/21 kV distribution transformer and related equipment will take place within the existing 70 kV substation. When such future distribution facilities are added, grading, site preparation, access driveway, and interior road construction will have been completed as part of the construction of the 70 kV substation.

Construction of any distribution substation equipment will be similar to that described for the 70 kV substation equipment. Foundation construction and trenching methods likely will be similar to those described in Section 2.8.5, Substation Construction. Equipment foundations would likely include drilled pier and pad type foundations. Trenching would likely be done to install additional conduits to route 21 kV cables and control cables between equipment and the existing control building. Once the 70/21 kV transformer is in place, a concrete curb would likely be poured to create a containment basin, then mineral oil will be delivered to complete the final assembly of the unit. The 70/21 kV transformer would be constructed with secondary containment design for oil containment in the event of a spill, and a Hazardous Material Business Plan would be filed with the State of California Environmental Reporting System and an SPCC Plan will be developed. All equipment would be tested after installation and wiring, and before placing in service. Equipment would be placed in service once individual circuits are ready to be energized and have been tested outside the substation.

2.8.8 Construction Water Use and Domestic Supply Services

The project substation site is not located within a water district or sewer service area. Water required for construction may come from several sources, including a private well located adjacent to the western edge of the project site, a municipal water source, delivered by water trucks, or Lake Nacimiento located northwest of Paso Robles. Another potential water source for construction will be recycled water from the City's newly upgraded wastewater treatment plant. In 2013, the City adopted a master plan to produce tertiary-quality recycled water and distribute it to east Paso Robles, where it may be safely used for irrigation of City parks, golf courses, and vineyards.

It is estimated that construction of the substation will require approximately 10.3 million gallons of water during the construction period (about 32 acre-feet). About 25% of the total water used will be for construction (concrete mixing), with the remaining 75% used for dust control during the construction period. All of the water sources described above have adequate capacity to serve the project either independently or in combination.

Daily water use during the construction period will vary based on the construction phase, but it is estimated that the average water use per day will be about 68,600 gallons, over the course of the estimated 7-month construction schedule. Portable restroom facilities will be provided at the site for worker use during the construction period.

2.8.9 Construction Workforce and Equipment

Different phases of the construction process will require varying numbers of construction personnel. On a typical workday, about 12–15 construction crewmembers will be working at Estrella Substation. Similarly, about 25 construction crewmembers will be working on the installation and/or removal of power line structures and on reconductoring activities. During pulling activities, a larger work team will be required to complete the various work stages. Typically, this activity will require about 30 workers, for short periods of time. During construction of the power line segment, up to four crews, consisting of approximately six workers will be working at any one time. The estimated equipment, duration of work, and personnel requirements by construction activity are presented in Table 2-7, Preliminary Construction Workforce and Equipment Use.

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Estrella Substation				
230 kV Substation				
Access Roads	**Workers**	**10**	Skip Loader	2
	1-Ton Crew Cab Flat Bed, 4x4	1	Water Truck	1
	Dump Truck	2		
Site Work Area Preparation Mobilization	**Workers**	**10**	Roller	2
	Bulldozer	1	Grader	1
	Articulating Dump Truck	4	Tandem Axle Dump Truck	2
	Scraper	1	Water Truck	2
	Rubber Tire Loader	1	Pickup Truck	1
Fence and Gate Installation	**Workers**	**5**	3-Ton Flat Bed Truck	1
	½-Ton Pickup Truck, 4x4	1	Bobcat	1
	1-Ton Crew Cab Flat Bed, 4x4	1	Water Truck	2
Foundation Construction	**Workers**	**2–12**	Water Truck	1
	Hole Digger	1	Pickup Truck	1
	Backhoe/Dozer/Excavator	1	Crane or Boom Truck	1
Ground Grid / Conduit Installation	**Workers**	**5**	Water Truck	1
	Trencher	1		

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Steel / Bus Erection	**Workers**	**5**	Aerial Man Lift	1
	Boom Truck	1	Water Truck	1
Install Yard Rock	**Workers**	**8**	Dump Truck	1
	Bobcat	1	Water Truck	1
Transformer and Equipment Delivery and Installation	**Workers**	**5–8**	Crane or Boom Truck	1
	2-Ton Truck	1	Tractor/Trailer	1
	Pickup Truck	1	Portable Gas/Diesel Generator(s)	1
	Bucket Truck	2		
Control Enclosure Delivery and Install	**Workers**	**6**	Crane	1
Remaining Equipment Delivery and Install	**Workers**	**2–5**	Boom Truck	1
Cable Installation and Termination	**Workers**	**5**	Aerial Man Lift	1
Testing and Commissioning	**Workers**	**2–5**	Pickup Truck with Trailer	2
Cleanup and Restoration	**Workers**	**3**	Front-End Loader	1
	Blader	1	Water Truck	1
70 kV Substation				
Site Work Area Preparation Mobilization	**Workers**	**6**	Grader	1
	Backhoe/Dozer/Excavator	1	1-Ton Pickup Truck, 4x4	2

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Foundation Construction	**Workers**	**6**	Trencher	1
	Hole Digger	1	1-Ton Pickup Truck, 4x4	1.75
	Backhoe/Dozer/Excavator	1		
Ground Grid / Conduit Installation	**Workers**	**4**	1-Ton Pickup Truck, 4x4	1
	Backhoe/Dozer/Excavator	1	Trencher	1
Steel / Bus Erection	**Workers**	**8**	Aerial Man Lift	2
	Boom Truck	2	1-Ton Pickup Truck, 4x4	2
Equipment Delivery and Installation	**Workers**	**6**	Aerial Man Lift	2
	Boom Truck	1	1-Ton Pickup Truck, 4x4	2
Control Enclosure Delivery and Install	**Workers**	**5**	1-Ton Pickup Truck, 4x4	2
Cable Installation and Termination	**Workers**	**5**	1-Ton Pickup Truck, 4x4	2
Install Yard Rock	**Workers**	**6**	Dump Truck	1
	Bobcat	1	Backhoe/Dozer/Excavator	1
Cleanup and Restoration	**Workers**	**4**	1-Ton Pickup Truck, 4x4	1
Testing and Commissioning	**Workers**	**4**	1-Ton Pickup Truck, 4x4	1
230 kV Transmission Interconnection				
Site Work Area Preparation Mobilization	**Workers**	**8**	Backhoe/Dozer/Excavator	1
	½-Ton Pickup Truck, 4x4	1	Grader	1

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
	1-ton Crew Cab Flat Bed, 4x4	1	Water Truck	1
Foundation Tower Installation / Removal of One Tower	**Workers**	**10**	Pickup Truck	2
	Crane	3	Dump Truck	1
	Bucket Truck	2	2-Ton Truck	2
	Concrete Truck	2	Forklift	3
	Drill	1	Line Truck	2
	Backhoe	1	Water Truck	1
Conductor	**Workers**	**15**	Line Truck	2
	Bucket Truck	2	Pickup Truck/Crew Truck	4
	Crane	3		
Cleanup and Restoration	**Workers**	**5**	Pickup Truck	1
	Grader	1	Water Truck	1
	Backhoe	1		
Power Line Route				
New 70 kV Power Line Segment				
Site Work Area Preparation Mobilization	**Workers**	**6**	Grader	2
	1-Ton Crew Cab Flat Bed, 4x4	1	Backhoe	1
	Pickup Truck	1	Water Truck	2

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Pole Tower Installation	**Workers**	**21**	2-Ton Truck	3
	Concrete Truck	3	Line Truck	3
	Backhoe	2	Utility Truck	1
	Tractor Trailer	1	Water Truck	2
	Pickup Truck	3	Crane	1
	Bucket Truck	3		
Conductor Installation	**Workers**	**18**	Wire Truck/Trailer	1
	Line Truck	3	Crane w/basket	3
	Pickup Truck	3	Bucket Truck	2
	2-Ton Truck	3	Light Duty Helicopter	1
	Wire Puller	1	Forklift	1
	Tensioner	1	Water Truck	1
Cleanup and Restoration	**Workers**	**6**	Backhoe	1
	Pickup Truck	1	Water Truck	1
	Grader	1		
Reconductoring Segment				
Site Work Area Preparation Mobilization	**Workers**	**6**	Pickup Truck	1
	1-Ton Crew Cab Flat Bed, 4x4	1	Grader	1

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
	Water Truck	1	Backhoe	1
Pole Installation / Transfer / Distribution / Removal	**Workers**	**20**	Water Truck	1
	Crane/Basket	3	Helicopter	1
	Heavy Crane	1	Bucket Truck	2
	Drill	1	Line Truck	2
	1-Ton Crew Cab Flat Bed, 4x4	3	2-Ton Truck	3
	Pickup Truck	3		
Conductor Installation	**Workers**	**15**	Wire Puller	1
	Line Truck	2	Tensioner	1
	Pickup Truck	2	Wire Truck/Trailer	1
	2-Ton Truck	2	Forklift	1
	Crane/Basket	2	Medium Duty Helicopter	1
	Bucket Truck	2	Water Truck	1
Cleanup and Restoration	**Workers**	**6**	Backhoe	1
	Pickup Truck	1	Water Truck	1
	Grader	1		

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Future Distribution Facilities				
Mobilization	**Workers**	**6**	2-Ton Truck	1
	1-Ton Crew Cab Flat Bed, 4x4	2	1-Ton Crew Cab Flat Bed, 4x4	1
	Water Truck	1	Backhoe	1
Foundation Construction	**Workers**	**2–12**	Backhoe	1
	1-Ton Crew Cab Flat Bed, 4x4	1–3	2-Ton Truck	1–3
Ground Grid/Conduit Installation	**Workers**	**5–10**	Crane	1
	1-Ton Crew Cab Flat Bed, 4x4	1–2	2-Ton Truck	1
Steel/Bus Erection	**Workers**	**5**	Pickup Truck	1
	Concrete Truck	2	2-Ton Truck	1
Distribution Bank and Breaker Installation	**Workers**	**5**	Crane	1
	1-Ton Crew Cab Flat Bed, 4x4	2		
	Semi-trailer Truck	1	Bucket Truck	2
Distribution Feeder, Conduit, Boxes, Underground Cable, Riser Poles, Line Work	**Workers**	**8**	Line Truck	2
	1-Ton Crew Cab Flat Bed, 4x4	1	Backhoe	1
	2-Ton Truck	1	Crew Truck	2
Cable Installation and Termination and Indoor Control Building Work	**Workers**	**3–5**	Backhoe	1
	1-Ton Crew Cab Flat Bed, 4x4	2	1-Ton P/U Truck, 4x4	1

Table 2-7. Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
	2-Ton Truck	1		
Testing	**Workers**	**3**	1-Ton P/U Truck, 4x4	3–4
Cleanup and Restoration	**Workers**	**3**	1-Ton Crew Cab Flat Bed, 4x4	1
	1-Ton Pickup Truck, 4x4	4	Water Truck	1
	Backhoe (or similar)	1		

The equipment that will be used during project construction is outlined in Table 2-8, Construction Equipment Summary. This is a preliminary equipment list, and other equipment may be identified when the project design is finalized or during construction if unexpected conditions require additional and/or different equipment.

Table 2-8. Construction Equipment Summary

Equipment	Use
Aerial Man Lift	Lifts crew members to make line connections
Auger (truck mounted highway digger 15- to 18-foot depth capability)	Drill holes for pole installation
Bore/drill rig	Installation of holes for new conduits
Cement and mortar mixer	Backfill of conduits
Concrete/industrial saw	Asphalt/concrete cutting associated with substation modification/expansion
Crane	Lifting of heavy equipment
Crew-cab truck or pickup truck	Transport personnel
Drill rig	Install electrical wells
Dump Truck (articulating or rigid, single or tandem axle truck)	Earth movement associated with substation modification/expansion; miscellaneous trash removal
Portable Gas/Diesel Generator	Power generation for operation of tools
Line truck (with auger, puller, worker-lift bucket, crane/boom, etc.)	Install and remove holes, poles, conductor
Mechanics service trucks	Service/repair vehicles
Grader	Create a finish grade at substation or orchard access road
Paving equipment (roller)	Asphalt installation and surfacing
Plate compactor	Grading
Puller/Tensioner (line truck or trailer-mounted)	Install conductor
Pump	Dewatering if groundwater is encountered, and watering for dirt suppression, if necessary
Reel trailer with reel stands (trailer or truck-mounted type)	Haul conductor
Forklift	Activities associated with substation modification/expansion, including transport of poles
Semi-trailer truck (tractor trailer and wire truck)	Haul grader, wire reel, or tubular steel pole

Table 2-8. Construction Equipment Summary

Equipment	Use
Sweeper/Scrubber	Road cleaning, if necessary
Tractor/loader/backhoe	Grading and foundation removal; backfilling of holes
Trencher	Installation of conduits and grounds at substations
Water truck	Dust suppression
Welder	Welds associated with substation modification/expansion

2.8.10 Construction Schedule

The project proponents estimate that construction of all project segments will take about 7 months to complete. Site development and preparation for all project components are preliminarily scheduled to begin in November 2018, after which construction of each of the components will occur concurrently. Commissioning and startup of Estrella Substation is scheduled to occur in May 2019. The preliminary construction schedule has been included as Table 2-9, Preliminary Construction Activity and Schedule.

Construction will typically occur 6 days per week (Monday through Saturday) throughout the duration of construction. Daily work hours will generally be 10 hours per day with construction typically occurring between 7:00 a.m. and 5:30 p.m. Occasionally, work may occur during the evening hours for activities such as monitoring the substation foundation curing process, and testing and commissioning the new substation components. However, such activities would not normally generate loud nose. Nighttime work may also be required when electrical clearances are available or for safe completion of a construction procedure. The San Luis Obispo County Noise Ordinance provisions for construction are 7:00 a.m. to 9:00 p.m., Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturday and Sunday. The City Noise Ordinance states that construction is permitted between the hours of 7:00 a.m. and 7:00 p.m. daily, with no specific reference to weekend limits. Although not directly applicable, these local limits will be observed by project proponents whenever feasible.

Table 2-9. Preliminary Construction Activity and Schedule

Project Phase	Task	Estimated Work Dates*
Estrella Substation		
Substation Site	Site Work Area Preparation Mobilization	November–December 2018
	Access Roads	November 2018
	Fence and Gate Installation	December 2018

Table 2-9. Preliminary Construction Activity and Schedule

Project Phase	Task	Estimated Work Dates*
230 kV Substation	Foundation Construction	December–January 2019
	Ground Grid / Conduit Installation	January–February 2019
	Steel / Bus Erection	February 2019
	Install Yard Rock	February–March 2019
	Transformer and Equipment Delivery and Installation	February–March 2019
	Control Enclosure Delivery and Install	March 2019
	Equipment Delivery and Install	March–April 2019
	Cable Installation and Termination	March–April 2019
	Testing and Commissioning	April–May 2019
	Cable Installation and Termination	March–April 2019
	Testing and Commissioning	April–May 2019
	Cleanup and Restoration	May 2019
70 kV Substation	Foundation Construction	December–January 2019
	Ground Grid / Conduit Installation	December–January 2019
	Steel / Bus Erection	January–February 2019
	Control Enclosure Delivery and Install	February 2019
	Equipment Delivery and Installation	February 2019
	Cable Installation and Termination	February–March 2019
	Install Yard Rock	March 2019
	Cleanup and Restoration	March 2019
	Testing and Commissioning	April 2019
230 kV Transmission Interconnection	Foundation Tower Installation / Removal of One Tower	December–January 2019
	Conductor	February 2019
	Cleanup and Restoration	March 2019
Power Line Route		
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	November 2018
	Pole Installation / Transfer / Distribution	December–February 2019
	Conductor Installation	March–April 2019
	Cleanup and Restoration	May 2019

Table 2-9. Preliminary Construction Activity and Schedule

Project Phase	Task	Estimated Work Dates*
Reconductoring Segment	Site Work Area Preparation Mobilization	November 2018
	Pole Installation / Transfer / Distribution / Removal	December–February 2019
	Conductor Installation	March–April 2019
	Cleanup and Restoration	May 2019
Future Distribution Facilities		***Total of 19 weeks****
	Mobilization	2 weeks
	Foundation Construction	6 weeks
	Ground Grid/Conduit Installation	4 weeks
	Steel/Bus Erection	4 weeks
	Distribution Bank and Breaker Installation	3 weeks
	Distribution Feeder, Conduit, Boxes, Underground Cable, Riser Poles, Line Work	6 weeks
	Cable Installation and Termination, Indoor Control Building Work	4 weeks
	Testing	4 weeks
	Cleanup and Restoration	2 weeks

Notes: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors.

* Dates are provided for duration estimates.

** Although the start date is not known at present, construction of the future 70/21 kV transformer and other 21 kV distribution facilities is estimated to last a total of 19 weeks (approximately 4 months) because many of the phases overlap.

2.9 OPERATION AND MAINTENANCE

This section describes the operation and maintenance activities that will be conducted for each project component once the project has been constructed and is in service. No additional staff will be required on-site after construction of Estrella Substation is completed.

The project proponents will operate all new and existing components of the project according to their respective standard operating protocols and procedures. No changes to standard operating procedures are proposed as part of the project. The project proponents anticipate using similar substation monitoring, control, and data acquisition architecture (SCADA) as used for their other power delivery assets, including the use of standard monitoring, control, protection equipment, circuit breakers, and other line relay protection equipment. The substation will be dual scanned from PG&E and NEET West data centers, and redundant Inter-Control Center Communications Protocol servers will exchange SCADA data with CAISO with real-time situational awareness. The SCADA support personnel will perform daily checks of the applications and hardware to ensure they are in proper working order. The SCADA system will also be maintained to ensure compliance with NERC Critical Infrastructure Protection Standard requirements.

2.9.1 Estrella Substation

2.9.1.1 230 kV Substation

The proposed 230 kV substation will be remotely operated from a control center operated by a NEET West affiliate, subject to approval by CPUC and other applicable regulatory authorities.

A maintenance plan for the substation will be created in accordance with the equipment vendors' directives, industry practice, NEET West's internal guidelines, and regulatory requirements. The plan will comply with the CAISO Transmission Control Agreement and Maintenance Practices Procedure and approved by CAISO before the start of commercial operation.

In general, monthly inspections will be performed on the substation to inspect each required piece of equipment and ensure that no obvious abnormalities exist to the extent possible without taking the substation or transmission line(s) out of service. More invasive checks, calibrations, and maintenance on the substation's components will be performed periodically. Owing to the diversity of substation equipment and the individual system components, a small, specialized team will execute the varying degrees of monthly and annual maintenance requirements.

2.9.1.2 70 kV Substation

Remote operation of the 70 kV substation will occur from a Grid Control Center that operates 24 hours a day, 7 days a week, each day of the year to oversee PG&E's 70 kV electrical grid. The Grid Control Center is equipped with full utility redundancy, back-up power, and telecommunications that will serve as PG&E's Emergency Operations Center in times of natural disaster.

Existing operation and maintenance crews will monitor the new substation equipment as part of their current substation operation and maintenance activities. Maintenance plans for all PG&E facilities are entered and tracked using PG&E's Systems, Applications, and Products system. PG&E's existing local maintenance and operations group will perform monthly inspections, patrol, and maintenance duties as needed for the 70 kV substation.

2.9.2 Power Line

The proposed power line components will operate unattended. An approximately 10-foot radius (approximately 314 square feet) may be maintained around new power poles dependent on location and equipment installed as required by applicable law, including CPUC G.O. 95. Project proponents may therefore keep these areas clear of natural vegetation. Vegetation growing too close to conductors within the easement will be trimmed or removed for safety. Herbicides may be used for some vegetation maintenance activities.

Inspections of the power line segments will be performed annually by PG&E routine patrols, either from the ground or by helicopter. A detailed inspection of the power lines is typically performed by staff every 2 years (wood structures), with an air patrol inspection performed in between, as outlined in PG&E's 2016 Electric Transmission Preventative Maintenance Manual. For lines constructed on steel structures, detailed inspections will occur every 5 years.

The inspection process involves routine patrols from existing local staff either on the ground or by helicopter tasked with patrolling the power lines. Normal inspection and patrols will typically be completed in a 4×4 pickup and/or an off-road utility vehicle. While not expected, if walking is required, the inspector will complete portions of the inspection on foot. Climbing inspections will be performed on an as-needed basis, based on specific identified conditions and in compliance with CAISO guidelines and regulations.

2.9.3 Future Distribution Facilities

PG&E will continue to operate the 70 kV substation with future distribution remotely from its Grid Control Center. The distribution feeders will continue to be operated and controlled from the Distribution Operations Office located in Concord, California. Existing operation and maintenance crews will monitor the future distribution facilities as part of their current operation and maintenance activities. The distribution feeders will operate unattended.

2.10 APPLICANT PROPOSED MEASURES

The following APMs (Table 2-10, Applicant Proposed Measures) will be implemented by the project proponents in order to avoid and minimize potential impacts. The APMs are discussed in context with environmental resources in their respective Chapter 3 sections. The significance of each project impact is first considered prior to application of APMs. The implementation of APMs is then considered part of the project when evaluating significance.

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	Power Line
GENERAL			
GEN-1	**Prepare and Implement a Worker Environmental Awareness Program.** The project proponents will prepare and implement a project-specific Worker Environmental Awareness Program (WEAP) for construction personnel. All on-site construction personnel will attend the training before they begin work on the project. WEAP training materials will include avoidance and minimization measures being implemented to protect biological resources, surface and groundwater resources, cultural resources, and paleontological resources; minimize air quality impacts; and manage hazardous materials. WEAP training will also discuss terms and conditions of any permits or agreements, information on federal and state environmental laws, and consequences and penalties for violation or noncompliance with these laws and regulations and project permits. Workers will be informed about the presence, identification, life history, and habitat requirements of the special-status species that have a potential to occur in the project area. More specifically, training will include: • recognizing/avoiding exclusion areas and sensitive habitat and specific avoidance or minimization measures for sensitive species and habitats; • how to identify cultural resources; avoidance requirements and procedures to be followed if unanticipated cultural resources are discovered during construction; disciplinary actions that may occur when historic preservation laws and project proponent policies are violated; • how to identify paleontological resources, including types of fossils that could occur in the project area and types of lithologies in which the fossils could be preserved; avoidance requirements and procedures to be followed if a fossil is discovered during construction; penalties for disturbing paleontological resources; • hazardous substance spill prevention and containment measures; and • review of mitigation and avoidance measures. A brochure prepared by the project proponents conveying this information will be prepared for distribution to all construction staff and other individuals who enter the construction footprint. All WEAP trainees will receive a project sticker for their hard hat to show they have been trained, sign a training sign-in sheet, verifying participation and that they understand the training and will comply with the information presented. Focused trainings may be directed at an individual's job-specific task, provided that the worker conducts activities within a limited scope (pilots, delivery drivers, site visitors, etc.).	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
AESTHETICS			
APM AES-1	**Substation Hardscaping.** Decorative rock and/or other hardscape landscaping will be installed between Estrella Substation and Union Road.	✓	N/A
APM AES-2	**Light and Glare Reduction.** Construction lighting and permanent substation exterior lighting will be selectively placed and shielded to minimize nighttime glare.	✓	✓
AGRICULTURE AND FOREST RESOURCES			
APM AG-1	**Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities.** The project proponents will work with farmers, ranchers, and landowners to schedule project-related construction activities in a manner that avoids conflicts with harvest and planting periods, to the extent feasible, and in a manner that minimizes disruptions to agricultural operations. Access across active fields shall be negotiated with the landowner in advance of any construction activities. Coordination will include advance notice of construction activities and reporting of complaints, as follows: • Prior to construction, the project proponents will give at least 30 days' advance notice of the start of construction-related activities. Notification shall be provided by mailing notices to all properties within 300 feet of the substation or power line route. The notice will describe where and when construction activity is planned and shall provide contact information for a point of contact for complaints related to construction activities. • Prior to commencing ground disturbing activities, the project proponents will submit a copy of the template used for the notification letter and a list of the landowners notified to CPUC.	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
AIR QUALITY			
APM AIR-1	**Minimize ROG, NO_X, and PM Combustion.** • Maintain all construction equipment in proper tune according to manufacturer's specifications; • Fuel all off-road and portable diesel powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); • Use on-road heavy-duty trucks that meet CARB's 2010 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the state On-Road Regulation; • Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g., captive or NOx exempt area fleets) may be eligible by proving alternative compliance; • All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated staging areas and substation site to remind drivers and operators of the 5-minute idling limit; • Electrify equipment when feasible; • Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and, • Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.	✓	✓
APM AIR-2	**Air Quality Best Available Control Technology for Construction Equipment.** Best Available Control Technology (BACT) measures for the project include: • Reduce emissions by expanding use of Tier 3 off-road and 2010 on-road compliant engines; • Installing California Verified Diesel Emission Control Strategies.	✓	✓
APM AIR-3	**Minimize Fugitive Dust.** • Reduce the amount of the disturbed area where possible; • Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. • All dirt stock pile areas should be sprayed daily as needed;	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	**Power Line**
	• All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by SLOAPCD; • Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface; • All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114; and, • Sweep streets at the end of each day if visible soil material extending over 50 feet is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where possible.		
BIOLOGICAL RESOURCES			
APM BIO-1	**Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas.** Biologists will conduct pre-construction survey(s) for special-status species and sensitive resource areas immediately prior to construction activities within suitable aquatic and upland habitat for special-status species. If a special-status species is encountered on the project site, the project proponents will be contacted immediately to determine the appropriate course of action. For federally or state listed species, the project proponents will contact the appropriate resource agency (USFWS and/or CDFW), as required.	✓	✓
APM BIO-2	**Avoid Impacts on Nesting Birds.** If work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in the project proponent's *Nesting Birds: Specific Buffers for PG&E Activities*, and will occur within 15 days prior to the start of work activities at designated construction areas, staging areas, and landing zones to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and/or by helicopter and will support phased construction, with surveys scheduled to be repeated if construction lapses in a work area for 15 days between March and July. Access for ground surveys will be subject to property access permission. Helicopter flight restrictions for nest detection surveys may be in effect for densely populated residential areas, and will include observance of appropriate established buffers and avoidance of hovering in the vicinity of active nest sites.	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
	If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in the project proponent's *Nesting Birds: Specific Buffers for PG&E Activities*. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in *Nesting Birds: Specific Buffers for PG&E Activities*. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. Per the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order cessation of nearby project activities if nesting pairs exhibit signs of disturbance. All references in this APM to qualified wildlife biologists refer to qualified biologists with a bachelor's degree or above in a biological science field and demonstrated field expertise in ornithology, in particular, nesting behavior.		
APM BIO-3	**Biological Monitoring.** Biologists will monitor initial ground-disturbing activities in and adjacent to sensitive habitat areas to ensure compliance with Best Management Practices and APMs, unless the area has been protected by barrier fencing to protect sensitive biological resources and has been cleared by the biologists. The monitor will have authority to stop or redirect work if construction activities are likely to affect sensitive biological resources. If a listed wildlife species is encountered during construction, project activities will cease in the area where the animal is found until the qualified biologist determines that the animal has moved out of harm's way, or with prior authorization from USFWS and/or CDFW if required, relocates the animal out of harm's way, and/or takes other appropriate steps to protect the animal. Work may resume once the qualified biologist has determined that construction activities will not harm any listed wildlife species. The project proponents will be responsible for any necessary reporting to USFWS and/or CDFW.	✓	✓
APM BIO-4	**Special-Status Species Protection.** All trenches/excavations in excess of 2 feet deep will have a sloped escape ramp or be covered at the end of the day. All trenches and excavations will be inspected for wildlife at the beginning of the workday and prior to backfilling. In addition, open-ended project-related pipes 4 inches or greater in	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
	diameter will be capped if left overnight or inspected for wildlife prior to being moved. If a special-status species is discovered in a trench, excavation, or pipe, the animal will be left undisturbed, and the pipe will not be moved until the special-status species has left the area on its own accord. In the event that any special-status species is trapped and unable to leave on its own accord, a permitted biologist, defined as a qualified biologist that holds the appropriate federal and/or state permits, will recover and relocate the special-status species. In addition, all food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed trash containers or kept in closed vehicles. Trash containers will be removed from the project area on a regular basis.		
APM BIO-5	**Dead or Injured Special-Status Wildlife.** If any dead or injured special-status wildlife or birds protected by the Migratory Bird Treaty Act are discovered at the project during construction, work will stop in the immediate vicinity. The project proponents will notify the on-call biologist and the appropriate resource agency (USFWS and/or CDFW) before construction is allowed to resume.	✓	✓
CULTURAL AND PALEONTOLOGICAL RESOURCES			
APM CUL-1	**Retain a Qualified Cultural Principal Investigator.** A Cultural Resources Principal Investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, will be retained to ensure that all APMs related to archaeological and historical resources are properly implemented. The Principal Investigator may either be on-staff with project proponents or an outside consultant, as appropriate for the project's needs, and will serve in a strictly supervisory capacity, overseeing crews charged with the application of the APMs in the field.	✓	✓
APM CUL-2	**Avoidance.** The project is designed to avoid impacts to potentially CRHR-eligible and CRHR-eligible resources identified within the study area. Potentially eligible (i.e., not evaluated) resources in the study area in include archaeological sites 36052-S-001, 36052-S-002, and 36052-S-003. In addition, the Johnson House was evaluated for the project and is considered CRHR-eligible (pending CPUC concurrence). To avoid indirect and direct impacts to 36052-S-001, 36052-S-002, 36052-S-003, a 50-foot buffer will	N/A	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	Power Line
	be established around the boundary of each respective resource and designated as Environmentally Sensitive Areas. If work within the 50-foot buffer cannot be avoided, then monitoring will be required. Methods of Environmentally Sensitive Area delineation may include, as applicable, flagging, rope, tape, or fencing. The Environmentally Sensitive Areas should be clearly marked on all pertinent construction plans. Construction activities will avoid impacts to the Johnson House entirely.		
APM CUL-3	**Inadvertent Discoveries.** In the event that unanticipated cultural materials are encountered during any phase of construction, all construction work within 50 feet of the discovery will cease and the Principal Investigator will be consulted to assess the find. Construction activities may continue in other areas. Avoidance of resources is the preferred option. However, if avoidance of a resource is not feasible, project proponents will assess the find for significance, as defined by PRC Section 21083.2, through implementation of Phase II investigations. If resources are found to be significant, a detailed archaeological treatment plan, including Phase III data recovery, will be developed and implemented by a qualified archaeologist.	✓	✓
APM CUL-4	**Discovery of Human Remains.** If human remains are discovered, all work within 50 feet of the discovery will cease and the Environmental Inspector or Construction Supervisor will notify the County Coroner immediately. State of California Health and Safety Code Section 7050.5 stipulates that no further disturbance will occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The lead cultural resource managers on staff with the project proponents (depending on the location of the remains) and CPUC will also be notified of the find immediately. If the human remains are determined to be prehistoric, the County Coroner will notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). The MLD will complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	✓	✓
APM CUL-5	**Tribal Construction Monitoring.** If it becomes necessary to work within 50 feet of Dry Creek, Huerhuero Creek, and the Salinas River, or known prehistoric archaeological sites, a tribal monitor will be selected by CPUC and retained to conduct full-time monitoring of initial ground-disturbing activities (i.e., initial excavation and grading) in areas with high potential to discover prehistoric archaeological resources.	N/A	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	**Power Line**
APM CUL-6	**Archaeological Construction Monitoring.** If it becomes necessary to work within 50 feet of Dry Creek, Huerhuero Creek, and the Salinas River, or known prehistoric or historic sites, an archaeological monitor, approved by the Principal Investigator, will be retained to conduct monitoring of initial ground-disturbing activities (i.e., initial excavation and grading) in areas with high potential to discover prehistoric or historic archaeological resources.	N/A	✓
APM PALEO-1	**Retain a Qualified Paleontological Principal Investigator.** A Paleontological Resources Principal Investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to ensure that all APMs related to paleontological resources are properly implemented.	✓	✓
APM PALEO-2	**Inadvertent Discoveries.** If paleontological resources are discovered during construction activities, the following procedures will be followed: • Stop work immediately within 50 feet. • Contact the designated lead on staff with the project proponents (depending on the location of the resource) immediately. The designated lead will notify CPUC. • Protect the site from further impacts, including looting, erosion, or other human or natural damage. • The Principal Investigator will evaluate the discovery and make a recommendation to CPUC as to whether or not it is a unique paleontological resource. CPUC will have 24 hours to respond to this recommendation, and the lack of response within 48 hours will indicate concurrence with the recommendation. • If the resource is not a unique paleontological resource, then it will be documented appropriately, and no further measures will be required. • If the resource is a unique paleontological resource, the Principal Investigator, in consultation with the project proponent, will recommend resource-specific measures to protect and document the paleontological resource, such as photo documentation and avoidance or collection. CPUC will have 24 hours to respond to these measures, with no response within 48 hours indicating concurrence. Unique resources inadvertently discovered during augering will be documented as indicated above, but, due to safety concerns, any remaining resource	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
	below ground will not be salvaged. If the resource can be avoided, then no CPUC concurrence will be necessary. • If collection is necessary, the fossil material will be properly prepared in accordance with the project proponents, Society of Vertebrate Paleontology guidelines, and CPUC requirements, and/or curation at a recognized museum repository. Appropriate documentation will be included with all curated materials. • Any material discovered on private land is the property of the landowner and permission must be granted by the landowner for the material to be removed and curated Once the resource is determined to be not unique, or appropriate treatment is completed as described above, work may resume in the vicinity.		
APM PALEO-3	**<u>Paleontological Construction Monitoring</u>.** Paleontological monitors, approved by the Paleontological Resources Principal Investigator, will be retained to conduct monitoring of the initial ground-disturbing activities as described below. Monitoring requirements vary with the sensitivity of the mapped sediments and the type of construction activity, as follows: 1. *Estrella Substation:* High Surface Sensitivity – project areas mapped as older alluvium (Qoa) or Paso Robles formation (Qtp): - In locations where the ground has been previously disturbed by agricultural or other development, monitoring is required only when excavations or grading exceed the depth of previous disturbance. For augering within the substation site, the proponents will follow the protocol identified below under Power Line. - In locations where no previous disturbance exists, full-time monitoring is required when excavations, grading, or trenching exceeds 3 feet in depth. During monitoring, a qualified paleontological monitor, as determined by the Principal Investigator, will observe construction activity as well as check any spoils piles to watch for the appearance of fossil resources. Low Surface Sensitivity – project areas mapped as Holocene alluvium (Qa or Qg) – no fossils at the surface: - No monitoring is required for surface work.	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	Power Line
	- Should ground disturbance exceed the depth of the Holocene sediments (estimated to be 5 feet), monitoring is required as described above for high sensitivity. 2. *Power Line:* High Surface Sensitivity – project areas mapped as older alluvium (Qoa) or Paso Robles formation (Qtp): - Full-time monitoring will not be required along the power line route. - Augering that uses a drill bit 3 feet, or less, in diameter will not be monitored. Small-diameter drill bits generally result in pulverized rock by the time they reach the surface, so any fossils contained within will not be identifiable. Larger-diameter drill bits (i.e., greater than 3 feet) often bring up intact chunks of rocks that may contain identifiable and scientifically important fossils (particularly microfossils). All large angled tubular steel pole locations will be monitored. - During work, a portion of the excavated material will be examined visually and through screen-sifting, if necessary. If screening is necessary, then a sample of spoils may be collected and processed either on-site or off-site as work on the pole placement proceeds. Should unique fossil material be discovered, it may be recorded and collected if the resource is determined by the Principal Investigator to be worth salvaging. Otherwise it will be recorded and included in the final monitoring report. Should it be determined that the type of auger or drill being used renders monitoring not useful (i.e., materials come out of the hole in a pulverized powder or a silty mud), monitoring will be discontinued. - Because it is extremely unsafe and impractical to excavate fossils from within an auger bore or drill hole, and to do so would unnecessarily disturb fossils further, no effort will be made to collect buried fossils indicated in spoils materials. However, the location and nature of the materials identified will be recorded, and this will be documented in the final monitoring report and reported to repositories as appropriate. These measures are based on the currently available data. As construction proceeds and additional data becomes available, the Principal Investigator could revise these measures with CPUC concurrence. Should monitors identify fossil remains during the course of construction, APM PALEO-2 will be implemented. All monitoring activities will be documented on daily logs. Monitoring logs and reports will include the		

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
	activities observed, geology encountered, description of any resources encountered, and measures taken to protect or recover discoveries. Photographs and other supplemental information will be included as necessary. A final monitoring report will be developed to document locations, methods, and results of monitoring.		
APM PALEO-4	**Fossil Recovery.** In the event that unique paleontological resources are encountered, protection and recovery of those resources may be required. The Principal Investigator will oversee the recovery effort in consultation with the project proponents (depending on the location of the resource), CPUC, and property owners as appropriate. The Principal Investigator may designate a paleontologist to implement the recovery, preparing specimens for identification and preservation, and completing all field documentation in accordance with the project proponents, Society of Vertebrate Paleontology guidelines, and CPUC requirements, and/or curation at a recognized museum repository. If fossil is not accepted by a museum for curation, then project proponents will have fulfilled their obligation for fossil recovery.	✓	✓
GEOLOGY AND SOILS			
APM GEO-1	**Soft or Loose Soils.** Soft or loose soils, such as sands and loamy sands, are likely to be encountered during construction. Where soft or loose soils are encountered during design studies or construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve soft or loose soils. Such measures may include the following: • Locating construction facilities and operation away from areas of soft and loose soil. • Over-excavating soft or loose soils and replacing them with non-expansive engineered fill. • Increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction. • Treating soft or loose soils in place with binding or cementing agents. • Construction activities in areas where soft or loose soils are encountered may be scheduled for the dry season, as necessary, to allow safe and reliable equipment access.	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	Power Line
GREENHOUSE GAS EMISSIONS			
APM GHG-1	**<u>Minimize Operational SF_6 Emissions</u>.** During operation and maintenance of Estrella Substation, the project proponents will: • Incorporate Estrella Substation into each of the project proponents' system-wide SF6 emission reduction programs. CARB requires that company-wide SF6 emission rate not exceed 1% by 2020. • Upon construction completion, the project proponents will have implemented a programmatic plan to inventory, track, and recycle SF6 inputs, and inventory and monitor system-wide SF6 leakage rates to facilitate timely replacement of leaking breakers. X-ray technology is used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing SF6 handling and accidental releases. As active members of the U.S. Environmental Protection Agency's SF6 Emission Reduction Partnership for Electrical Power Systems, the project proponents have focused on reducing SF6 emissions from their transmission and distribution operations. • Require that the breakers at Estrella Substation have a manufacturer's guaranteed maximum leakage rate of 0.5% per year or less for SF6. • Maintain substation breakers in accordance with the project proponents' maintenance standards. • Comply with CARB's Early Action Items as these policies become effective.	✓	N/A
HAZARDS AND HAZARDOUS MATERIALS			
APM HAZ-1	**<u>Hazardous Substance Control and Emergency Response</u>.** The project proponents will implement hazardous substance control and emergency response procedures as needed. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
	stored on site. If it is necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available on site, as applicable. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and, if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations. All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following: • Proper disposal of potentially contaminated soils. • Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. • Emergency response and reporting procedures to address hazardous material spills. Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit.		
HYDROLOGY AND WATER QUALITY			
APM HYDRO-1	**Avoidance of Sensitive Aquatic Features.** The project will be designed to avoid sensitive aquatic features (i.e., jurisdictional wetlands, waters, and riparian areas) to the extent feasible. Specific avoidance strategies include: • Siting permanent structures in uplands outside of existing drainage features. • Siting staging areas, pole/tower work areas, pull sites, and other temporary staging/materials storage areas in uplands outside of existing drainage features/riparian areas, utilizing developed/urban, agricultural land, or ruderal land in preference to native terrestrial or riparian	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components: Estrella Substation	Project Components: Power Line
	habitats. • Selecting access roads and overland travel routes in uplands while avoiding other sensitive features (e.g., steep slopes, rare plant localities, and sensitive wildlife habitats). • Should access or work areas be required through or within jurisdictional wetlands and waters, all regulated activities within jurisdictional wetlands and waters (e.g., waters of the United States and waters of the State) will require regulatory approval/permitting from the appropriate agency including USACE, CDFW, and/or RWQCB prior to any work within jurisdictional features. Prior to construction, sensitive aquatic features slated for avoidance will be identified in the field and clearly marked for avoidance using flagging tape, fencing, and/or high-visibility signage. Construction personnel will be trained on feature avoidance marking and associated restrictions.		
NOISE			
APM NOI-1	**Construction Schedule Limits.** The project proponents will limit grading, scraping, augering, and pole installation to 7:00 a.m. to 7:00 p.m. daily. Exceptions for work outside of these hours will follow the notification requirements outlined in APM AG-1.	✓	✓
APM NOI-2	**Noise Minimization.** The project will incorporate various measures to reduce construction related noise where feasible using the following methods: • Construction equipment will use noise reduction devices that are no less effective than those originally installed by the manufacturer. • Stationary equipment used during construction will be located as far as practical from sensitive noise receptors. • "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design—compressors have "quiet" models) will be used during construction when reasonably available.	✓	✓

Table 2-10. Applicant Proposed Measures

APM No.	Description	Project Components	
		Estrella Substation	**Power Line**
TRANSPORTATION AND TRAFFIC			
APM TR-1	**<u>Air Transit Control</u>.** The project proponents will implement the following protocols that pertain to helicopter use during construction: • Comply with all applicable Federal Aviation Administration regulations regarding air traffic; • Helicopter operators will coordinate all project helicopter operations with the Paso Robles Municipal Airport before and during project construction; • Coordinate with potentially affected residents or businesses to minimize the duration of necessary work and any resulting inconvenience; and, • Implement a Congested Area Plan if the helicopter work will take place in a congested or densely populated area. A congested area is anywhere that includes the presence of the non-participating public. A densely populated area is an area of a city, town, or settlement that contains a large number of occupied homes, factories, stores, schools, and other structures.	N/A	✓

2.11 ANTICIPATED PERMITS AND APPROVALS

CPUC is the lead state agency for the project under CEQA because a PTC is required in accordance with CPUC G.O. 131-D, Section III.B. G.O. 131-D contains the permitting requirements for the construction of transmission and power line facilities. In addition to the PTC, the project proponents will obtain all necessary permits for the project from federal, state, and local agencies. Table 2-11, Potential Permits and Approvals, provides the potential permits and approvals that may be required for project construction.

Table 2-11. Potential Permits and Approvals

Permit/Authorization	Agency	Jurisdiction/Purpose
Federal		
Aeronautical Study (7460-2 form)	Federal Aviation Administration	Determination of No Hazard to Air Navigation
State		
Permit to Construct (G.O. 131-D)	California Public Utilities Commission	Construction, modification, or alteration of power line facilities
Standard Encroachment Permit	California Department of Transportation	For use of California State highways for other than normal transportation purposes, including construction activities completed within the easement.
National Pollution Discharge Elimination System Storm Water Permit	State Water Resources Control Board	Construction activities disturbing 1 acre or more of soil must submit a Notice of Intent to comply with the terms of the general permit.
Local		
Encroachment Permit	City of Paso Robles	Construction in and adjacent to City property and right-of-way.
Air Pollution Control District Permit	San Luis Obispo Air Pollution Control District	For conducting activities which may result in air pollution.
Encroachment Permit	County of San Luis Obispo	Construction in and adjacent to County property and right-of-way.

2.12 ELECTRIC AND MAGNETIC FIELDS

Recognizing that there is public interest and concern regarding potential health effects from exposure to EMF from power lines and substations, Appendix B provides some general background information regarding EMF associated with electric utility facilities. However, EMF is not addressed here as an environmental impact under CEQA. CPUC does not consider EMF to be an environmental issue or, in the context of CEQA, an environmental impact. This is because there is no agreement among scientists that EMF creates a potential health risk and because CEQA does not define or adopt standards for defining any potential risk from EMF.

Instead, CPUC requires project proponents to employ "no cost" and specified "low cost" measures to reduce public exposure to EMF in accordance with CPUC Decision 06-01-042, and will comply with their respective guidelines.

2.13 REFERENCES

Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA.

California Independent System Operator (CAISO) 2014. *2013-2014 CAISO Transmission Planning Process, Estrella Substation Project Description and Functional Specifications for Competitive Solicitation.* June 26, 2014. Online: www.pge.com/includes/docs/pdfs/safety/pasorobles/PasoRobles_CAISO_ProjectDescription.pdf. Accessed November 5, 2016.

California Public Utilities Commission (CPUC). 2008. *Proponent's Environmental Assessment (PEA) Checklist for Transmission Line and Substation Projects*. Online: www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5068. Accessed on August 4, 2016.

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3.0 ENVIRONMENTAL SETTING AND IMPACTS SUMMARY

The following sections (3.1 through 3.18) provide an assessment of environmental impacts resulting from construction and operation of the project. The environmental impacts are evaluated for the following resource areas, consistent with the requirements of the California Environmental Quality Act (CEQA):

1. Aesthetics
2. Agriculture and Forest Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Geology and Soils
7. Greenhouse Gas Emissions
8. Hazards and Hazardous Materials
9. Hydrology and Water Quality
10. Land Use and Planning
11. Minerals
12. Noise
13. Population and Housing
14. Public Services
15. Recreation
16. Transportation and Traffic
17. Utilities and Service Systems
18. Mandatory Findings of Significance and Cumulative Impact Analysis

Sections 3.1 through 3.18 present the environmental impact analysis for each resource area resulting from the project. Each section addresses applicable regulations, analysis methodology, baseline conditions, environmental impacts, and Applicant-Proposed Measures (APMs) to reduce or avoid significant or less-than-significant effects. A checklist is provided at the beginning of each section to summarize the level of impact (i.e., No Impact, Less Than Significant, Less Than Significant with Mitigation Incorporated, and Potentially Significant Impact) to each resource area, according to CEQA significance criteria. The analysis concludes that impacts will be less than significant after implementation of APMs.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line. The project also includes the rearrangement of the phasing on existing transmission lines and minor modifications to five existing substations. The minor substation modifications include installation and reconfiguration of system protection equipment, adding circuit breakers and disconnects, and/or adjusting relays. In addition, the telecommunications cable extending from the project's reconductoring segment will require connection to Paso Robles Substation.

The phasing on existing lines will be re-arranged within existing easements and similar to existing maintenance activities. The minor substation modifications will be made within existing substation fence lines at California Flats, Morro Bay, San Miguel, and Templeton Substations.

Consequently, no additional temporary or permanent land requirements will be needed at these four substations. Minor excavation outside the fence line of the Paso Robles Substation may be required for the telecommunication connection. No additional temporary or permanent land requirements will be needed for modification work at Paso Robles Substation. Therefore, impacts will be less than significant and are not discussed further in the Chapter 3 resource area sections.

The project approved by the California Independent System Operator Corporation included distribution facilities as part of the 70 kV substation component, and a location has been allocated within the 70 kV substation for 70/21 kV distribution facilities. While distribution demand projections do not support installing those facilities immediately as part of the Estrella Project, construction of the 70/21 kV distribution facilities—including one transformer and up to three feeders—is a reasonably foreseeable consequence of the Estrella Project because it is expected to occur within 5–15 years, depending on electric demand. Since the substation site will have already been prepared (rough graded), installing these facilities as a future project is expected to take approximately four months, and impacts will be minor. Those impacts, to the extent details are known at this time, are evaluated throughout the impact analysis in the PEA.

3.1 AESTHETICS

3.1.1 Introduction

This section describes existing conditions and potential impacts on aesthetic resources as a result of construction, operation, and maintenance of the project. The analysis concludes that with implementation of Applicant-Proposed Measures (APMs) described in Section 3.1.4.2, Applicant-Proposed Measures, impacts on aesthetic resources will be less than significant. The project's potential effects on aesthetic resources were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.1-1 and discussed in more detail in Section 3.1.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.1-1. CEQA Checklist for Aesthetics

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

3.1.2 Regulatory Background and Methodology

3.1.2.1 Regulatory Background

Federal

No federal regulations related to aesthetic or visual resources are applicable to the project.

State

California Scenic Highway Program

California's Scenic Highway Program, a provision of the Streets and Highways Code, was established by the State Legislature in 1963 to preserve and enhance the natural beauty of California. The State Scenic Highway Program includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives the designation from Caltrans (Caltrans 2008). A city or county may propose to add routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for a highway to be officially designated.

According to the California Scenic Highway Mapping System (Caltrans 2011), State Route (SR-) 46, located approximately 1.6 miles north of Estrella Substation and crossed by the power line route, has been identified as eligible for State Scenic Highway designation. No routes in the vicinity of the project have been designated as State Scenic Highways.

Local

Because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local discretionary regulations. However, the following local plans and policies have been considered as part of the environmental review process. This section includes a summary of local standards or ordinances that describe the visual character of the project area for informational purposes and to assist with the CEQA review process. The project alignment is located in both the unincorporated areas of San Luis Obispo County and within the municipal planning limits of the City of El Paso de Robles (City).

County of San Luis Obispo General Plan

The *Land Use Element* of the *County of San Luis Obispo General Plan* (County of San Luis Obispo 1980) focuses primarily on the general distribution and intensity of uses of land for housing, commercial, industry, open space, education, public facilities, and other categories of both public and private uses. The *County of San Luis Obispo General Plan* contains provisions in its *Conservation and Open Space Element* regarding visual quality (County of San Luis Obispo 2010). Goals concerning aesthetics include the following:

Goal VR 1: *The natural and agricultural landscape will continue to be the dominant view in rural parts of the county.*

Goal VR 2: *The natural and historic character and identity of rural areas will be preserved.*

Goal VR 3: *The visual identities of communities will be preserved by maintaining rural separation between them.*

Goal VR 4: *Protect visual resources within sensitive resource areas for scenic corridors.*

Goal VR 5: *Views from scenic vistas and vista points will be protected.*

Goal VR 6: *A cohesive visual character will be maintained in urban areas.*

Goal VR 7: *Views of the night sky and its constellations of stars will be maintained.*

Goal VR 8: *Visual intrusions of signs will be minimized within public view corridors.*

Goal VR 9: *The visual effects of utility lines will be minimized.*

City of Paso Robles General Plan

The *Conservation Element* of the *City of El Paso de Robles General Plan* includes goals and policies for visual resources, and provides a listing of "Important Visual Resources" (City of El Paso de Robles 2003):

Goal C-5: *Visual Resources. Enhance/upgrade the City's appearance.*

Policy C-5A: *Visual Gateways and Landmarks. Identify important visual resources: gateways, corridors, major arterials, natural/open space areas.*

Policy C-5B: *Hillsides: Protect hillsides as a visual amenity, by implementing design standards.*

The General Plan identifies the following Important Visual Resources:

Gateways to the City:

- ***Highway 46 East*** *(between Jardine and Airport Roads)*
- ***Highway 101 at North End*** *(between Mustard Creek and Spring Street)*
- ***Highway 101 at South End (****between Highway 46 West and Spring Street)*
- ***Highway 46 West (****between Arbor Road and Highway 101)*
- ***Creston Road*** *(beginning east of Beechwood Drive to Charolais Road)*

- ***Spring Street*** *(north of 36th Street and south of 1st Street)*
- ***Airport Road***
- ***Union Road***
- ***Airport***
- ***Multi-Modal Transportation Center***

Visual Corridors:

- ***Highway 46 East*** *(between Jardine and Airport Roads)*
- ***Highway 101*** *(full length in the City)*
- ***Highway 46 West*** *(between Arbor Road and Highway 101)*
- ***Creston Road***
- ***Spring Street*** *(full length in the City)*
- ***Airport Road***
- ***Union Road***
- ***Railroad corridor*** *(full length in the City)*
- ***Natural Landmarks and Open Space Viewsheds:***
- ***Salinas River***
- ***Huerhuero Creek***
- ***Field at north end of Ramada Drive*** *(between the railroad and the Salinas River)*

Oak-covered hillsides

- ***East Side creeks/riparian corridors*** *(unnamed creeks #1-5 plus Turtle/Oak Creek)*
- ***View from Barney Schwartz Park southwest toward and into the Chandler Ranch area***

3.1.2.2 Methodology

The visual analysis conducted for the project addresses the CEQA Guidelines for potential impacts on aesthetic and visual resources, specifically Appendix G significance criteria. CPUC has not developed a specific methodology for assessing visual quality under CEQA. The project's potential effects on aesthetic resources were analyzed using the Visual Sensitivity-Visual Change methodology.

Visual Sensitivity-Visual Change

The visual impact assessment is based on evaluation of visual sensitivity-visual change. This type of aesthetic/visual assessment has been used by CPUC for numerous transmission line and substation projects. Under this methodology, the analysis is based on observations made during site reconnaissance and the potential changes to the existing visual resources that may result from construction and operation of the project. This analysis focuses on the elements of the project that will have the potential for visual sensitivity-visual change impacts. These include: construction and operation of Estrella Substation, construction of approximately 7 miles of new 70 kV power line between Estrella Substation and an existing 70 kV power line, and reconductoring of approximately 3 miles of an existing 70 kV power line, including pole replacements.

Site visits were conducted on April 26, May 24, and October 5, 2016, to identify existing visual and aesthetic conditions on-site and in the project vicinity, as well as to identify sensitive viewing locations from which the project may be visible. In addition, the analysis included a review of available technical data, maps, aerial imagery, ground-level photographs, and project-specific technical drawings provided by the project proponents.

The analysis focuses on the evaluation of vantage points (i.e., "Key Observation Points" [KOPs]), from which the project site may be visible. In addition to the KOP evaluations, the analysis also utilizes visual simulations that provide a "before" and "after" scenario to illustrate the potential visual changes that will occur with implementation of the project.

The baseline (before-project) photographs were taken with a digital single-lens reflex camera and a "normal" 50-millimeter-equivalent lens that represents a horizontal view angle of approximately 40 degrees. The simulation methods employ systematic computer modeling and rendering techniques. Digital aerial photographs and information about the project alignment and design, supplied by the project proponents, provided the basis for developing a three-dimensional (3D) computer model of the existing poles, towers, and the project.

For each simulation KOP, viewer location was input from Global Positioning System (GPS) data. Computer "wireframe" perspective plots were overlaid on the simulation photographs to verify scale and viewpoint location. Digital visual simulation images were then produced based on computer renderings of the 3D model combined with digital versions of the selected site photographs.

The visual impact assessment is, therefore, based on an evaluation of the anticipated changes to existing visual resources that will result from short-term construction and long-term operation of the project. These changes were assessed, in part, by evaluating the computer-generated visual simulations showing visual conditions with the project and comparing them to the corresponding existing view. During site reconnaissance, the project area was viewed from various public roads and vantage points to develop an overall assessment of the existing landscape character, visual quality, viewing conditions (i.e., viewer concern and viewer exposure), and overall visual sensitivity of the project.

Forty-two KOPs were originally identified, visited, and photo-documented during the site reconnaissance to show existing visual conditions. As the design and siting of the project was refined, 41 of those KOPs were ultimately selected for detailed evaluation based on consideration of typical views experienced by travelers and local viewers, and included locations where project-related changes will be most visible to the public or be seen by the greatest number of viewers. Of the 41 KOPs selected for detailed evaluation, eight visual simulations were developed to illustrate representative before-and-after visual conditions along the project alignment.

During site reconnaissance at each KOP, the existing landscape was characterized for aesthetic contributing factors as described below. Each of the aesthetics contributing factors considered in the evaluation of the existing landscape under the Visual Sensitivity-Visual Change Methodology (i.e., existing landscape character, visual quality, viewer concern, viewer exposure [viewshed], and overall visual sensitivity (Federal Highway Administration [FHWA] 2015)) is generally expressed as low, moderate, or high, as shown in Table 3.1-2, Visual Quality Rating Guidance, and discussed below.

Table 3.1-2. Visual Quality Rating Guidance

Visual Quality Rating	Visual Quality Guidance
High	• Landscape elements (landforms, vegetative patterns, water characteristics and cultural features) have high visual appeal • Landscape has high degrees of variety, vividness, intactness, harmony, and uniqueness (attributes) • Distinctive landscape that attracts people to view
Moderate-to-High	• Landscape elements have moderate-to-high visual appeal • Landscape attributes have a mix of moderate and high values • Landscape may contain built features that neither complement nor detract from overall visual quality
Moderate	• Landscape elements are moderately appealing • Landscape attributes have common or ordinary values • Landscape may contain discordant built features but they are subordinate
Low-to-Moderate	• Landscape elements have low-to-moderate appeal • Landscape has weak or missing attributes • Landscape may have prominent though not dominant discordant built features
Low	• Landscape elements have low-to-no appeal • Landscape is missing some attributes • Landscape is dominated by discordant built features

Aesthetics Contributing Factors

- ***Existing Landscape Character*** is a description of the specific views from a specific observation point (i.e., KOP) of a given landscape. The attributes for existing landscape character include variations and combinations of natural, rural, and developed character(s).

- ***Key Observation Point*** is a unique view or "observation" point from a specific location, looking in a specific direction. KOPs are identified during the project siting and design process, and are intended to provide typical views of the project.
- ***Visual Quality*** is a measure of the overall impression or appeal of an area as determined by the particular landscape characteristics such as unique landforms, rockforms, water features, and vegetation patterns, as well as associated public values, such as crowded or isolated. The attributes of variety, vividness, coherence, uniqueness, harmony, and pattern contribute to visual quality classifications of indistinctive (low), common (moderate), and distinctive (high) (see Table 3.1-2). Visual quality is studied as a point of reference to assess whether a given project will appear compatible with the established features of the setting or will contrast/dominate noticeably and unfavorably with them. The visual quality ratings (low to high) are substantially based on the U.S. Bureau of Land Management's (BLM) Scenic Quality Ratings as identified in BLM's Visual Resource Inventory Manual (BLM 1986).
- ***Viewer Concern*** addresses the general public's level of interest or concern of viewers regarding an area's visual resources and is closely associated with viewers' expectations for the area. Viewer concern reflects the importance placed on a given landscape based on the human perceptions of the intrinsic beauty of the existing landforms, rockforms, water features, vegetation patterns, and even cultural features. Viewer concern, or viewer sensitivity, is generally divided into high, moderate, and low categories. Factors considered in assigning categories include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. Viewer concern is based on any known information about the viewing population, existing land uses, and plan or policy designations that might indicate public importance. Motorists represent the largest potentially affected view groups for the project.
- ***Visibility*** is assigned one of five ratings (low to high). Visibility is determined by analyst judgment, based on field evaluation of viewing proximity, visible detail, seasonal variations, air quality, lighting, and presence or absence of screening features (land and vegetation).
- ***Distance Zones*** are assigned one of three ratings (foreground, middleground, or background). The determination of the viewing distance zone (the distance from the viewpoint to the project) is determined by map analysis.
- ***Number of Viewers*** can range from low to high. The analyst determines qualitative thresholds such as route popularity, route capacity, and frequency of use. It also includes field observations and a general understanding of potential residential viewers.
- ***Duration of View*** duration of view is a qualitative assessment made by the analyst and essentially denotes the relative length of the viewing experience (brief, brief-to-moderate, moderate, moderate-to extended, or extended).
- ***Viewer Exposure*** describes the degree to which viewers are exposed to views of the landscape. Viewer exposure considers landscape visibility (the ability to see the landscape), distance zones (proximity of viewers to the subject landscape), number of viewers, and the duration of view.

Landscape visibility can be a function of several interconnected considerations including proximity to viewing point, degree of discernible detail, seasonal variations (snow, fog, and haze can obscure landscapes), time of day or night, elevation/position of the project relative to the viewing point, and/or absence of screening features such as landforms, vegetation, and/or built structures. Even though a landscape may have highly scenic qualities, it may be remote, receiving relatively few visitors and, thus, have a lower degree of viewer exposure. Conversely, a subject landscape or project may be situated in relatively close proximity to a major road or highway utilized by a substantial number of motorists and yet still result in relatively low viewer exposure if the rate of travel speed on the roadway is high and viewing times are brief or absent. Frequently, it is the subject area's proximity to viewers or *distance zone* that is of particular importance in determining viewer exposure. Elevation/position relative to the viewing point can be highly variable, such as viewing from a passenger car versus a truck/van or viewing from the driver's seat versus a passenger seat.

Landscapes are generally subdivided into three distance zones based on relative visibility from travel routes or observation points. Distance zones typically include the foreground, 0.25 to 0.5 mile; middleground, extending from the foreground to a maximum of 3 to 5 miles; and background, extending from the middleground to infinity) (Smardon et al. 1986). Figures 3.1-3 through 3.1-5 provide a viewshed delineation, which informs viewer exposure based on the physical topography of the vicinity of project. Viewing distance is a key factor that affects the potential degree of project visibility. For purposes of this visual analysis, the primary focus is considered in the foreground viewshed area, where visual details are apparent, and up to approximately 1 mile from the project, where change could be noticeable.

View blockage or impairment describes the extent to which any previously visible landscape features are blocked from view as a result of the project's scale and/or position. Blockage of higher quality landscape features by lower quality project features causes adverse visual impacts. The degree of view blockage can range from none to high.

- ***Overall Visual Sensitivity*** is a concluding assessment as to an existing landscape's susceptibility to an adverse visual outcome. Section 3.1.4.3, Potential Impacts, describes the relationship of the anticipated visual change to the overall visual sensitivity. A landscape with a high degree of visual sensitivity is able to accommodate only a lower degree of adverse visual change without resulting in a significant visual impact. A landscape with a low degree of visual sensitivity is able to accommodate a higher degree of adverse visual change before exhibiting a significant visual impact. Overall visual sensitivity is derived from a combination of existing visual quality, viewer concern, and viewer exposure.
- ***Visual Change*** is a brief description of the change that will be caused by the proposed or subject action. It may include a description of the components contributing to the change as well as the effects on the existing landscape. Visual change descriptions will reference visual contrast, project dominance, and/or view blockage—the three factors contributing to overall visual change.
- ***Visual Contrast*** is assigned one of five ratings—low, low-to-moderate, moderate, moderate-to-high, or high. Visual contrast is a qualitative assessment that describes the

degree to which a project's visual characteristics differ from those established in the existing landscape.

- ***Project dominance*** is assigned one of five ratings—subordinate, subordinate to co-dominant, co-dominant, co-dominant to dominant, or dominant. Project dominance is a qualitative assessment and is a measure of a feature's apparent size relative to other visible landscape features and the total field of view.
- ***View blockage*** is assigned one of five ratings ranging from low to high. View blockage is a qualitative assessment that describes the extent to which any previously visible landscape features are either blocked from view or the views of those features are in some way impaired, as a result of the project's scale and/or position.
- ***Overall visual change*** is a summation of the three contributing factors of visual contrast, project dominance, and view blockage.

All of the above contributing factors are considered to determine impact significance. APMs are measures taken during design, construction, and/or operation/maintenance which are intended to lessen impacts to aesthetic resources. A description of the impact to aesthetic resources is described in terms of the CEQA Guidelines: potentially significant impact, less than significant impact with mitigation incorporation, less than significant impact, or no impact.

3.1.3 Environmental Setting

Figure 3.1-1, Key Observation Points, and Figure 3.1-2, Landscape Characterization Units, show the project location within a regional and local landscape context. The site is located in the northern portion of San Luis Obispo County, California, including portions of the city of Paso Robles.

3.1.3.1 Regional and Local Landscape Setting

The project is located approximately 25 miles east of the Pacific Ocean, and situated between the Temblor Range and the Santa Lucia Coastal Range, at the southern end of the Salinas River Valley. Topography within the vicinity of the project ranges from flat (0%) to gently sloping rolling hills (0–20%) to steep slopes (>45%) along roadside cuts with an approximate elevation of 960 feet. Generally, the project starts in the unincorporated Estrella region of San Luis Obispo County and runs west into the city of Paso Robles, where it continues north and then west, tying into the existing power line, which then runs south to the existing Paso Robles Substation. In unincorporated portions of the project area, land use is dominated by agricultural uses, particularly vineyards. Within Paso Robles, land use varies from moderate to densely urbanized areas, with primary land uses including residential, commercial, and light industrial uses.

Salinas River runs north through Paso Robles, adjacent to both U.S. Highway 101 (US 101) and the reconductoring segment of the power line. Huerhuero Creek runs in a northwest direction through the project area; the creek runs generally parallel to the new 70 kV power line segment for approximately 3 miles.

Figure 3.1-1. Key Observation Points

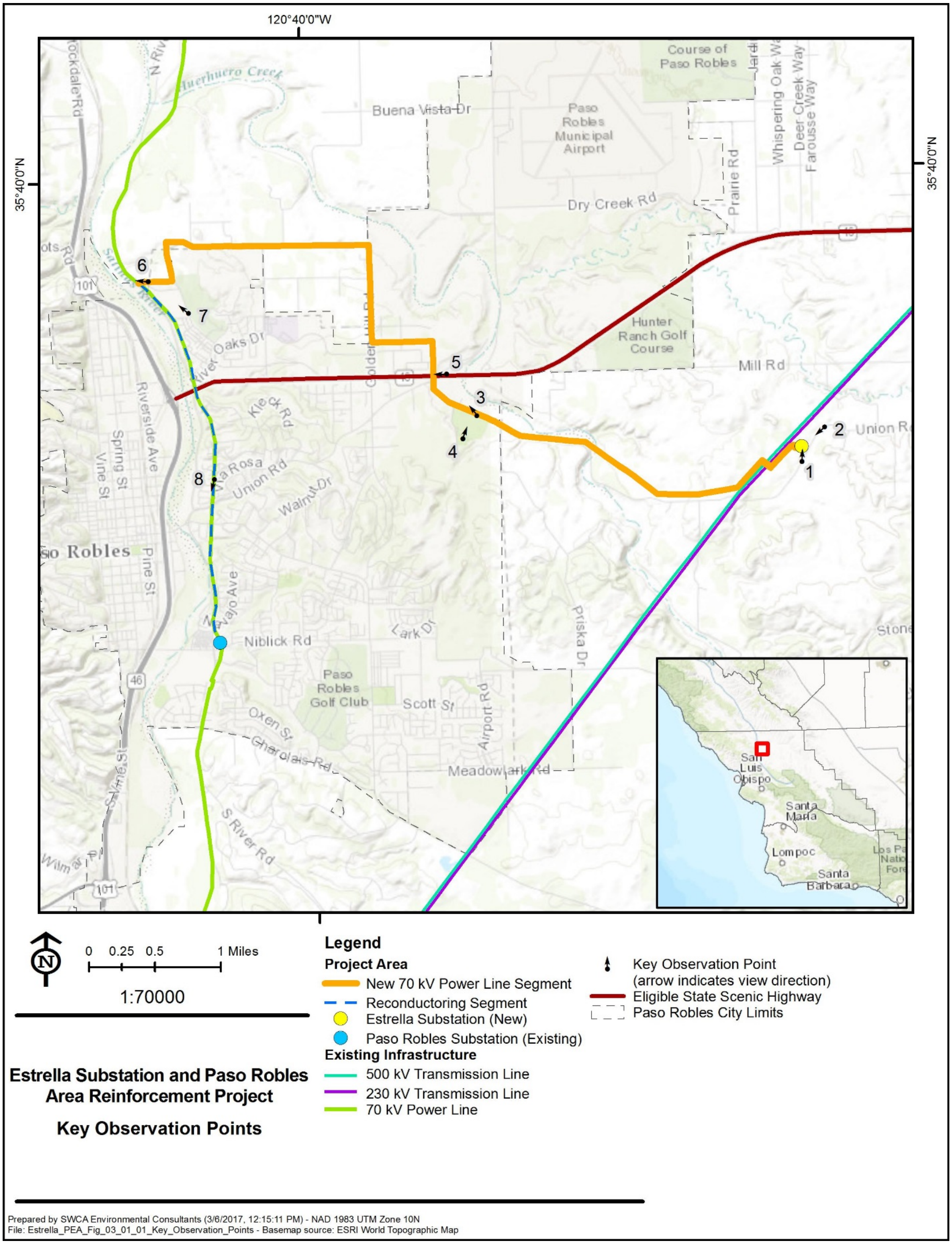
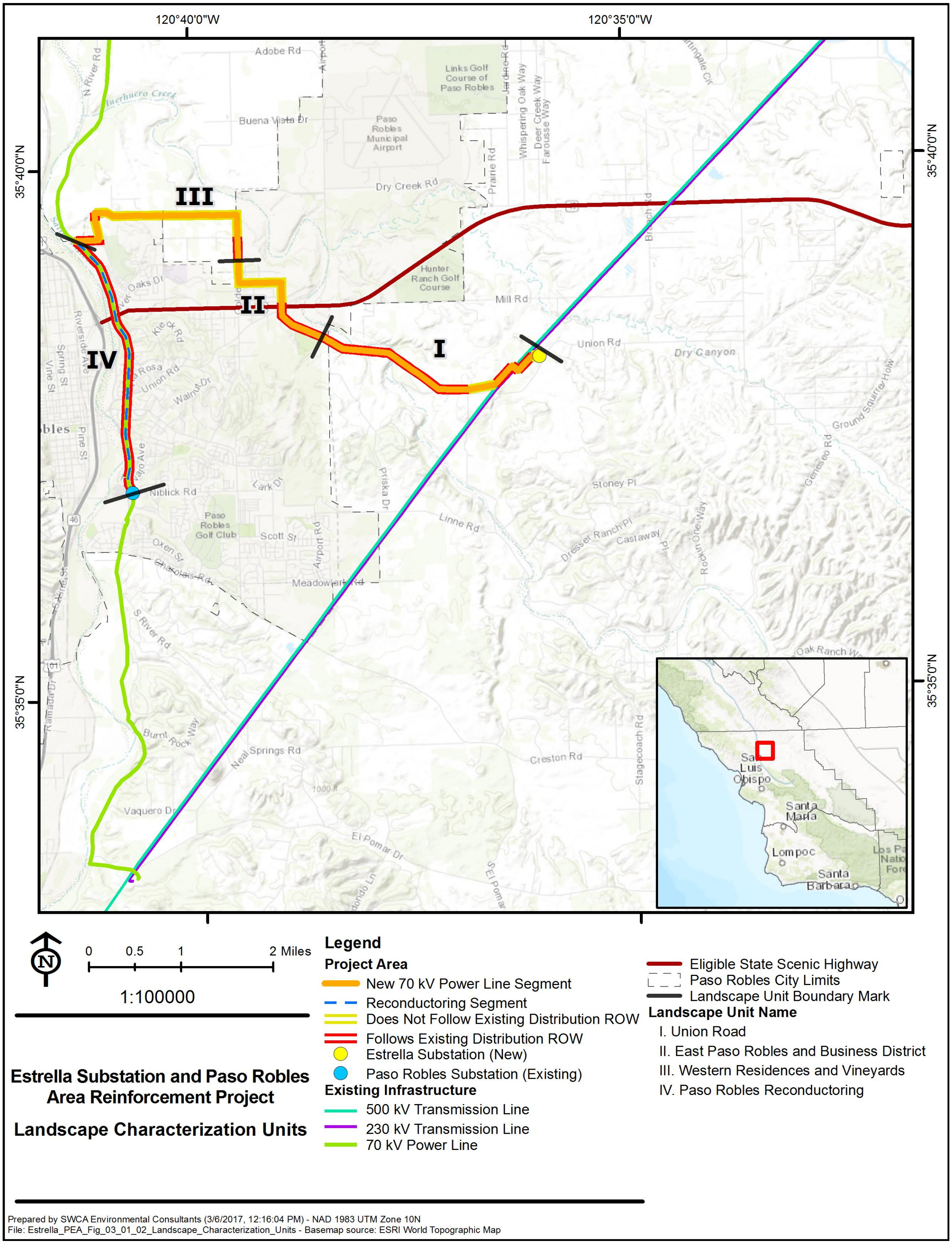


Figure 3.1-2. Landscape Characterization Units



3.1.3.2 Landscape Units and Representative Views

A set of four distinct sub-areas or landscape units has been identified for purposes of documenting and describing the project's foreground viewshed. Each landscape unit can be considered a distinct "outdoor room," with distinguishing topographic, vegetation, and/or development patterns. Table 3.1-3, Summary of Landscape Units within the Project Viewshed, summarizes the landscape units identified within the project viewshed. Photographs from KOPs portray representative visual conditions and public views in the project area. Figures 3.1-1 and 3.1-2 delineate the KOP locations and landscape units.

Table 3.1-3. Summary of Landscape Units within the Project Viewshed

Landscape Unit	Approximate Length (miles)	Photographs (Figure Number)	Primary Affected Viewers
1. Union Road	2.8	3.1-6, 3.1-8	Tourists, motorists, residents
2. East Paso Robles and Business District	1.5	3.1-10, 3.1-12, 3.1-14	Motorists, residents, tourists, recreationists
3. Western Residences and Vineyards	2.6	3.1-17	Residents, some motorists
4. Paso Robles Reconductoring	2.9	3.1-18, 3.1-20	Motorists, residents

Landscape Unit 1 encompasses Estrella Substation and the portion of the route that runs from Estrella Substation along Union Road into the Paso Robles city limits. Landscape Unit 2 extends from the eastern Paso Robles city limits through the eastern business district. Landscape Unit 3 encompasses the residential and vineyard developments to the north of Paso Robles. Landscape Unit 4 includes the reconductoring portion of the line, which runs through Paso Robles and terminates at Paso Robles Substation.

Each KOP was visited during site reconnaissance to develop an overall assessment of the existing landscape character, visual quality, viewing conditions (i.e., viewer concern and viewer exposure), and overall visual sensitivity of the project. Figures 3.1-3 through 3.1-5 (refer to figures in Section 3.1.3.3, Project Viewshed) show KOPs in conjunction with the viewshed analysis. Descriptions of the representative views of the KOPs per landscape unit are described below.

Landscape Unit 1: Union Road (KOPs 1 and 2)

Landscape Unit 1 includes Estrella Substation, the 230 kV interconnection, and 2.8 miles of the new 70 kV power line segment. Primary viewers in this landscape unit are residents, local motorists, and tourists visiting wineries and tasting rooms.

This landscape unit runs approximately 2.8 miles along Union Road in unincorporated San Luis Obispo County, beginning at Estrella Substation and running to the eastern Paso Robles city limits. Estrella Substation and the 230 kV interconnection will occupy an approximately 15-acre portion of a 98.6-acre parcel of land to the north of Union Road. The area surrounding Estrella Substation is characterized by rolling topography and vineyards with wineries, existing 500 kV and 230 kV transmission towers, distribution poles, and a few interspersed, single-family residences. Close range views of the substation will include locations along Union Road and from nearby wineries. The substation will sit at a higher elevation than the adjacent roadway. KOPs 1 and 2 (Figures 3.1-6 and 3.1-8; refer to figures in Section 3.1.4.3, Potential Impacts), demonstrate views from Union Road, both east and west bound. More distant views of Estrella Substation will be limited due to variations in topography and intervening vegetation.

From the substation site, the new 70 kV power line segment will run west, generally paralleling Union Road, and primarily following existing utility lines. As shown in Figure 3.1-1, a 0.3-mile portion of this new 70 kV line segment will not follow existing utility lines, and will be supported by approximately five new poles, spaced an average span length of approximately 300 to 500 feet. This 0.3-mile section will be located on privately-owned land that currently supports vineyards and a residence.

The area surrounding the new 70 kV power line segment includes wineries and single-family homes, interspersed with vineyards, existing 230 kV and 500 kV transmission line towers, fenced pastures, and rolling, open hills. At the western end of Landscape Unit 1, the new 70 kV power line segment crosses Huerhuero Creek. Views from public locations are generally open, with some limitations due to topography, vegetation, and existing transmission and distribution structures.

Key Observation Point 1

KOP 1 was established on Union Road in front of the nearest residence to the substation site. Viewing to the north, this public view is representative of the existing landscape views from Union Road and nearby residences. The landscape visible from KOP 1 is predominantly agricultural, almost entirely vineyards, and is affected by the existing 230kv and 500kV transmission lines in the middleground. Visual quality is moderate-to-high, with landscape elements having high appeal and the presence of discordant built features that are subordinate. Viewer concern is high as this KOP offers scenic views of vineyards, and viewer exposure is moderate for motorists and high for residents. Overall viewer sensitivity is moderate-to-high.

Key Observation Point 2

KOP 2 was established on Union Road at the eastern end of the proposed Estrella Substation site. Viewing to the west, this public view is representative of the existing landscape views for westbound travelers on Union Road. The landscape visible from KOP 2 is agricultural, almost entirely vineyards, and is affected by Union Road and the existing 230kV and 500kV transmission lines in the middleground. Visual quality is moderate-to-high, with landscape elements having high appeal and the presence of discordant built features that are subordinate. Viewer concern is high, as this KOP offers scenic views of vineyards, and viewer exposure is moderate, as primary viewers are motorists on Union Road. Overall viewer sensitivity is moderate-to-high.

Landscape Unit 2: East Paso Robles and Business District (KOPs 3, 4, and 5)

Landscape Unit 2 will include 1.5 miles of the new 70 kV power line segment, approximately 0.5 mile of which will be co-located with existing power lines. Primary viewers in this landscape unit are local motorists accessing residences, businesses, and recreation facilities, as well as motorists traveling SR-46.

This landscape unit runs approximately 1.5 miles from the city limits of Paso Robles through the eastern business district. In this landscape unit, the power line follows Union Road, crosses SR-46, and passes through an industrial business district. The area is characterized by relatively flat topography with existing distribution lines and structures, and residential and commercial development. Roadways in this area are primarily used by local residents. Close range views of the new power line will include locations along Union Road, from a circa-1890 historic residential house, Barney Schwartz Park, locations along SR-46, locations along Golden Hill Road, and from local commercial and industrial businesses and nearby residences.

From the Paso Robles city limits, the new 70 kV power line segment will continue west along Union Road for approximately 0.5 mile, and will be co-located with existing utility lines. The new power line route passes near Barney Schwartz Park, a city park that includes baseball and soccer fields with existing approximately 100-foot tall stadium lighting structures, lake and perimeter path, a playground area, restroom facilities, and barbeque areas. KOPs 3 and 4 (Figures 3.1-10 and 3.1-12) provide a view just off Union Road near the northeast parking lot for the park and a view across the park, respectively. KOP 3 also demonstrates the views along the new power line near the historic property, which is adjacent to the new 70 kV power line segment.

The new power line will continue across SR-46 and into an industrial business district in eastern Paso Robles. SR-46 is an eligible state scenic highway. KOP 5 (Figure 3.1-14) shows the representative view of the power line where it will cross SR-46 as viewed from westbound traffic. Approximately 1 mile of the power line passes through an industrial business district, and at this point the new 70 kV power line segment will no longer be co-located with existing power lines, as shown in Figure 3.1-1. The power line will travel north from SR-46, along the backside of several industrial businesses, where it will turn west at the northeast corner of the industrial area. The power line will travel west along the southern edge of the industrial lots, then turn north again to parallel Golden Hill Road for approximately 0.5 mile. This section along Golden Hill Road will be new 70 kV construction, and will include approximately 14 new poles, spaced by an average span length of approximately 300 to 500 feet. This 1-mile section is located on privately-owned land that currently supports commercial and industrial uses, along with residential homes. This landscape unit is predominantly flat topographically, with some screening provided by commercial buildings and vegetation.

Key Observation Point 3

KOP 3 was established just off Union Road adjacent to Barney Schwartz Park. Viewing to the west, this public view is representative of the existing landscape where the new 70 kV power line will be located as viewed from near the park entrance. The landscape visible from KOP 3 is predominantly developed with residences and the local baseball park, as well as Union Road and existing distribution lines and supporting structures. Visual quality is low-to-moderate as the landscape elements have moderate appeal and attributes are weak. Viewer concern is moderate, and viewer exposure is moderate-to-high. Overall viewer sensitivity is moderate-to-high.

Key Observation Point 4

KOP 4 was established at a ramada within Barney Schwartz Park. Viewing to the northeast, this public view is representative of the existing landscape view from a location within the park to where the new 70 kV power line will be located. The landscape visible from KOP 4 is predominantly developed with the baseball park, 100-foot tall stadium light poles, fencing, and concession stands in the foreground, and residences, existing distribution lines and supporting structures, and pastures in the middleground. Visual quality is moderate as the landscape elements have moderate appeal and attributes are weak. Viewer concern is low, and viewer exposure is low. Overall viewer sensitivity is low.

Key Observation Point 5

KOP 5 was established on SR-46 near its intersection with Union Road. Viewing to the west, this public view is representative of the existing landscape views from SR-46 as it approaches Paso Robles where the new power line will cross the highway. The landscape visible from KOP 5 is predominantly pastures and developed with wineries and residences, as well as existing distribution lines and supporting structures. Visual quality is low-to-moderate with moderately appealing landscape elements and prominent discordant built features. Viewer concern is low-to-moderate, as views from this KOP are already affected by man-made features. Viewer exposure is moderate as the number of viewers will be high, but they will generally be traveling at high speeds. Overall viewer sensitivity is low-to-moderate.

Landscape Unit 3: Western Residences and Vineyards (KOP 6)

Landscape Unit 3 will include approximately 2.6 miles of the new 70 kV power line segment, 1.5 miles of which will not follow existing utility easements, as shown on Figure 3.1-1. Primary viewers in this landscape unit are local motorists accessing residences and vineyards.

Beginning on Golden Hill Road at the northern end of the business district, the new power line will enter this landscape unit where Golden Hill Road turns into a private lane used for residential access. The new 70 kV power line segment will follow approximately 0.5 mile of Golden Hill Road, co-located with an existing distribution line, then turn and run west along Buena Vista Drive to the connection at River Road. The area is characterized by gently rolling hills, vineyards, pastures, and residential development. Foreground views of the new power line will include locations along Golden Hill Road and along Buena Vista Drive, as well as private lanes and nearby residences. At River Road, the new 70 kV power line segment will break away from the existing utility corridor, and continue on its own. This area is currently private residences with agricultural pastures and vineyards dominating the landscape.

The new 70 kV power line segment will parallel Golden Hill Road for approximately 0.4 mile, and be co-located with an existing power line, then continue north on private property for another approximately 0.1 mile. Views of the new line from the southern part of Golden Hill Road will be open and unobstructed, while the northern portion has vegetation that will provide partial screening. Golden Hill Road is primarily used by local residents.

The new 70 kV power line segment will then turn west on private property and continue for approximately 1.5 miles where it parallels Buena Vista Drive and a private lane. Of the 1.5 miles of new 70 kV power line segment along this route, approximately 0.6 mile, where it parallels a private lane, will not be co-located with an existing power line. The views of the new line are open and unobstructed, with gentle rolling hills providing limited screening.

The new 70 kV power line segment will then follow private dirt roads, vineyard access lanes, and cross a fallow field for approximately 0.5 mile before connecting to the existing line along River Road, where the reconductoring portion of the 70 kV power line begins. Views are generally open, with occasional screening provided by topography and vegetation. KOP 6 (Figure 3.1-16) shows a representative view where the new 70 kV power line will connect to the existing power line on River Road.

Key Observation Point 6

KOP 6 was established on a private lane accessing agricultural fields, to illustrate the point at which the project transitions from the new 70 kV power line segment to the reconductoring segment of the existing 70 kV line. This KOP was included in the analysis because this area may have much higher viewer exposure and viewer concern if a planned residential subdivision is constructed (see Section 3.18, Mandatory Findings of Signficance and Cumulative Impacts). Viewing to the northwest, this private view is representative of the existing landscape views where the new power line segment will tie into the reconductoring segment. The landscape visible from KOP 6 is dominated by agricultural fields, trees, and the foothills in the background. Visual quality is moderate, with landscape elements having moderate visual appeal and discordant built features that are subordinate. Viewer concern is high, as this KOP is located on private lands with scenic views of agricultural fields, mountains, and foothills. Viewer exposure is low-to-moderate as the number of viewers is low, but the duration of view is moderate-to-high. Overall viewer sensitivity is moderate-to-high.

Landscape Unit 4: Paso Robles Reconductoring (KOPs 7 and 8)

Landscape Unit 4 includes the approximately 3-mile reconductoring segment of the project. This section includes replacing the wires and some poles of an existing power line; the entire reconductoring portion of the 70 kV power line follows an established utility corridor.

This approximately 3-mile landscape unit extends through Paso Robles along the existing power line that will be subject to reconductoring. The landscape unit begins at the northern end of the reconductoring segment in north Paso Robles, and runs south, generally paralleling North and South River Road for 3 miles to Paso Robles Substation. The area is characterized by steep hills, native and ornamental vegetation, existing distribution lines, and residential neighborhoods. Close-range views will include locations along River Road, crossing SR-46, and Riverglen Drive and the associated neighborhood, as well as many nearby residences. KOP 7 (Figure 3.1-18) shows a representative view of the reconductoring segment from Clubhouse Drive, near North River Road.

The existing power line crosses SR-46 approximately 0.9 mile south of the beginning of the landscape unit. South of SR-46 by approximately 0.5 mile, the power line enters a neighborhood, and ends up following Riverglen Drive for approximately 0.25 mile. KOP 8

(Figure 3.1-20) shows a representative view of the reconductoring segment from Riverglen Drive. The existing line crosses Union Road, then continues south for approximately 1 mile, generally located on the hilltops above River Road, crossing open pastures and the backside of neighborhoods until it reaches Paso Robles Substation.

Key Observation Point 7

KOP 7 was established on Clubhouse Drive, a public road that is adjacent to a private club and golf course in a residential area, near North River Road. Viewing to the west, this public view is representative of the existing landscape views of the reconductoring segment from residential areas. The landscape visible from KOP 7 is predominantly open fields with vegetation in the foreground, and existing distribution lines and supporting structures in the middleground, with rolling hills in the background. Visual quality is moderate as the landscape elements have moderate appeal and attributes are weak. Viewer concern is low, and viewer exposure is moderate-to-high. Overall viewer sensitivity is low.

Key Observation Point 8

KOP 8 was established on Riverglen Drive, a public road in a residential area. Viewing to the south, this public view is representative of the existing landscape views of the reconductoring segment from a residential area. The landscape visible from KOP 8 is predominantly developed, with residences, trees, and existing distribution lines and supporting structures in the foreground. Visual quality is low as the landscape elements have moderate appeal and attributes are weak. Viewer concern is low, and viewer exposure is high. Overall viewer sensitivity is low.

3.1.3.3 Project Viewshed

A project viewshed is defined as the general area from which a project is visible. For purposes of describing a project's visual setting and assessing potential visual impacts, the viewshed can be broken down into foreground, middleground, and background zones. The foreground is defined as the zone within 0.25 mile to 0.5 mile of the viewer; the middleground is defined as the zone that extends from the foreground to a maximum of 3 to 5 miles of the viewer; and the background zone extends from the middleground to infinity (Smardon et al. 1986).

Viewing distance is a key factor that affects the potential degree of project visibility. Visual details generally become apparent to the viewer when they are observed in the foreground, at a distance of 0.25 to 0.5 mile or less. The primary focus of the visual analysis included in this PEA is the foreground viewshed zone, where visual details are most apparent, up to approximately 1 mile from the project area, where change could be noticeable. Viewshed analysis is demonstrated on Figures 3.1-3 through 3.1-5, Viewshed Delineation.

The impact analysis in Section 3.1.4.3, Potential Impacts, describes changes to existing visual resources and assesses viewer response to that change. Central to this assessment is an evaluation of the project "viewshed" which displays whether the project might be "visible" or "not visible" from a specific location. It should be noted that "visible" means that under clear-sky and conditions during daylight hours, a casual viewer may be able to "notice or see" the project if the viewer chooses to focus in on the project. "Visible" does not discern the degree of contrast the project will impose upon the view, nor does it imply that a casual viewer will automatically "notice or see" the project. Accordingly, the further distant the "visible" displays shown on Figures 3.1-3 through 3.1-5 are from the project, the more difficult it will be for a viewer to discern the project from the existing landscape.

3.1.3.4 Potentially Affected Viewers

Accepted visual assessment methods for CPUC energy projects establish sensitivity levels as a measure of public concern for changes to scenic quality. Viewer sensitivity, one of the criteria for evaluating visual impact significance, can be divided into high, moderate, and low categories. Factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. According to the FHWA's *Guidance for Visual Impact Assessment for Highway Projects* (2015), research on the subject suggests that certain activities tend to heighten viewer awareness of visual and scenic resources, while others tend to be distracting. The project viewshed includes several types of concerned viewer groups including residents, motorists, and tourists.

The first viewer group is composed of residents, and includes people living in the county and Paso Robles areas near Estrella Substation and along the new power line route, particularly in the eastern and western ends of the power line route. Partially due to longer duration of views, the sensitivity of this viewer group is considered moderate-to-high.

Motorists compose the second group, and include people traveling Union Road, SR-46, and local roads in Paso Robles. Union Road travelers have the longest duration of view, as the power line route generally parallels Union Road for approximately 3.5 miles, and includes Estrella Substation. With posted speeds of 55 miles per hour (mph) (40 mph on curves), view duration for motorists on this section of Union Road (i.e., Landscape Unit 1) is estimated at 5 minutes or less. Due to the relatively high speed (55 mph), curves, and tight lanes (i.e., no shoulder, turning lanes only at specific intersections), viewer awareness along this section of Union Road for vehicle operators is low. Viewer awareness for vehicle passengers is moderate-to-high.

SR-46 has the largest number of travelers, and the power line route crosses perpendicularly. With a posted speed of 60 mph, view duration for motorists on SR-46 where the power line will intersect is estimated at 1 minute or less. Viewer sensitivity of motorists is considered low-to-moderate.

The third group of viewers includes tourists who come to the area to visit wineries and tasting rooms. Wineries on and near Union Road are members of a wine tour route in the area. Partially due to longer duration of views, the sensitivity of this viewer group is considered moderate.

Figure 3.1-3. Viewshed Delineation of Estrella Substation (2-mile)

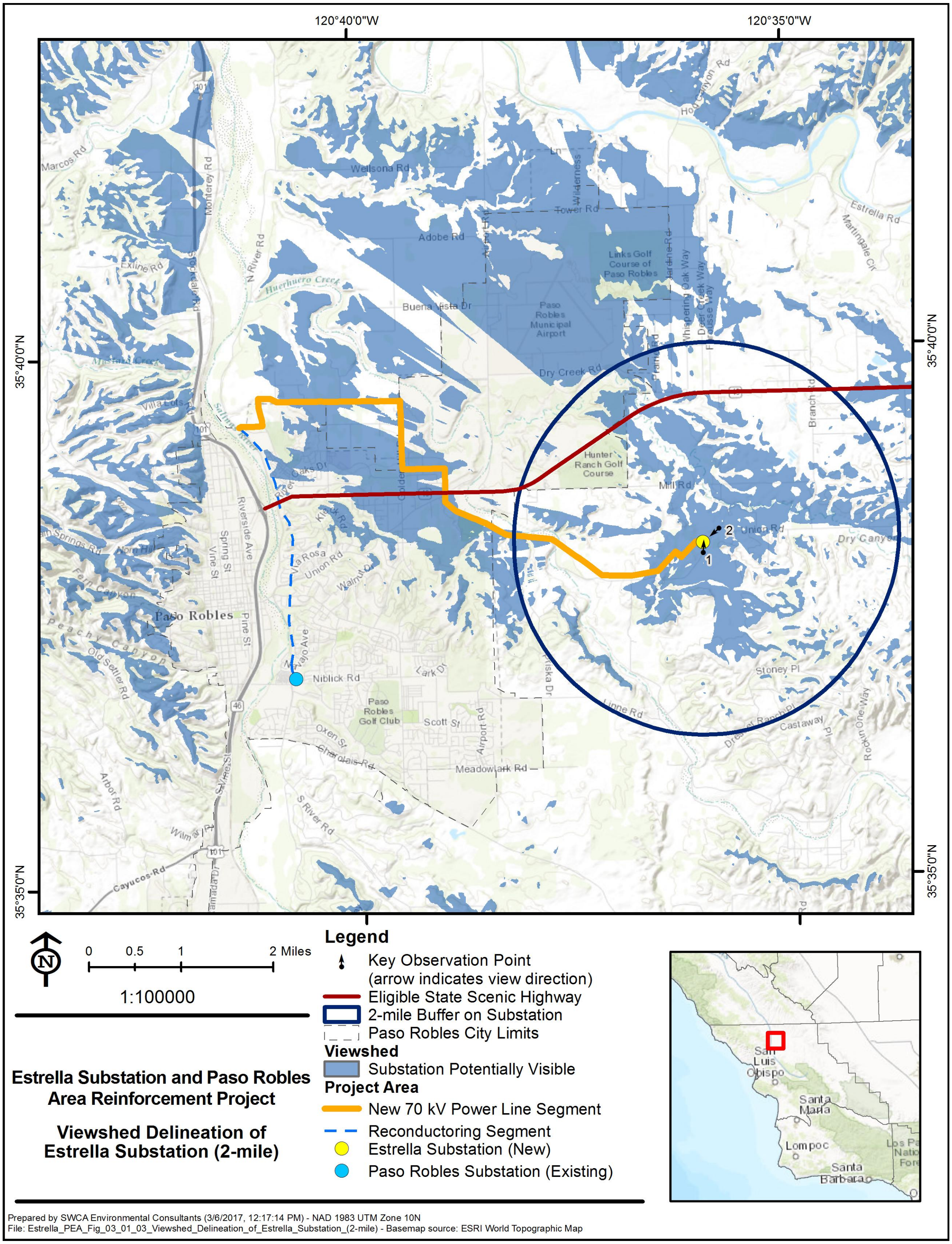


Figure 3.1-4. Viewshed Delineation of Estrella Substation (5-mile)

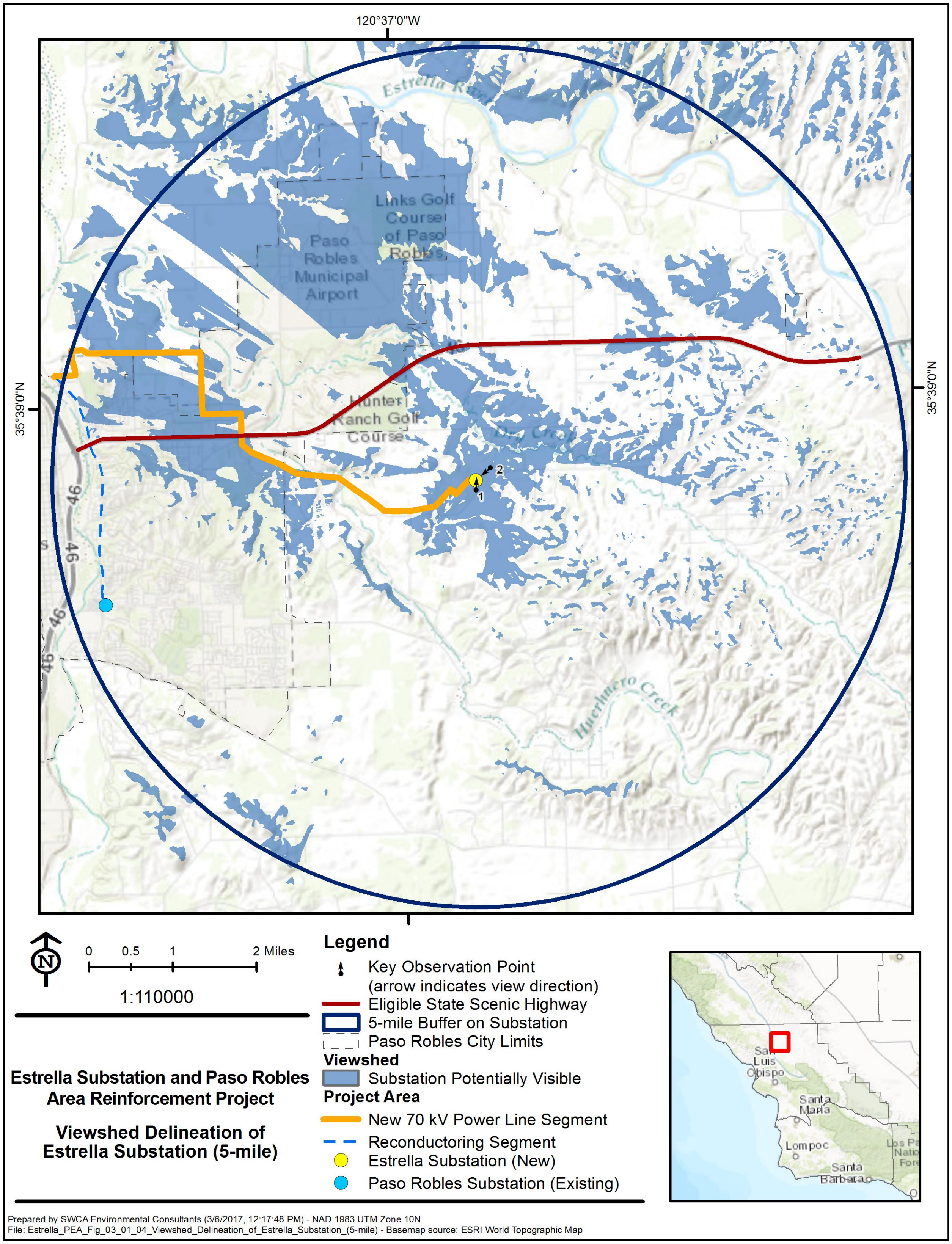
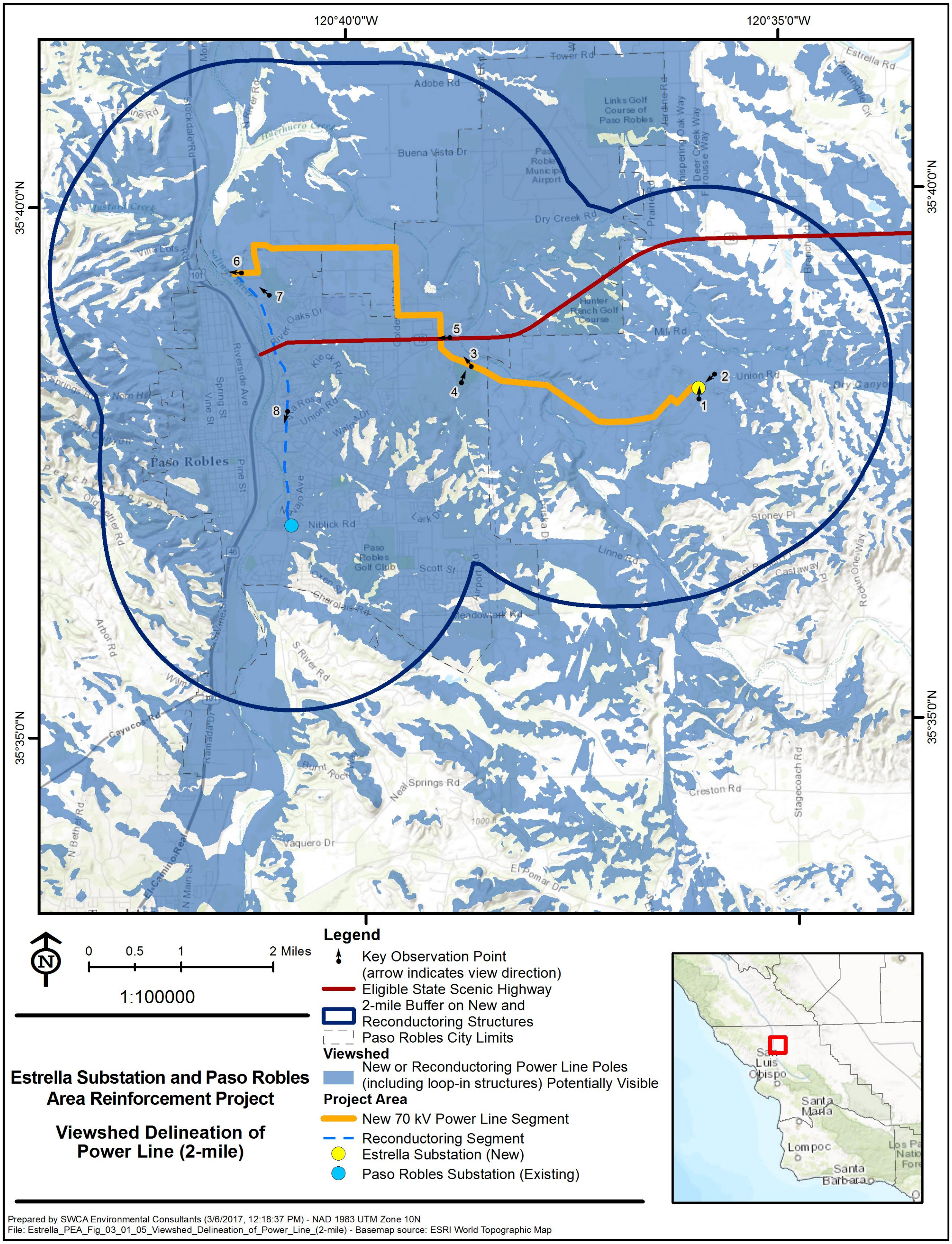


Figure 3.1-5. Viewshed Delineation of Power Line (2-mile)



3.1.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for aesthetic impacts derived from Appendix G of the CEQA Guidelines, provide APMs to reduce impacts, and assess potential project-related construction and operational aesthetic impacts.

3.1.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project-related impacts on aesthetics was evaluated for each of the criteria listed in Table 3.1-1, as discussed in Section 3.1.4.3, Potential Impacts.

Appendix G of the CEQA Guidelines (California Code of Regulations [CCR] Title 14, Section 15000 et seq.) provides guidance on assessing if a project would have significant impacts on the environment. Consistent with Appendix G, the project would have significant aesthetic impacts if it would:

a. Have a substantial adverse effect on a scenic vista or substantially damage a scenic resource.
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
c. Substantially degrade the existing visual character or quality of the site and its surroundings such that the project would cause a moderately high or high visual impact.
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.1.4.2 Applicant-Proposed Measures

Mitigation for aesthetics and visual resources impacts resulting from the substation and power line facilities focuses on methods to minimize the visibility of the resulting visual change, either by screening the change from view or by blending the change with the foreground or background (by selective use of coloration and/or screening). By their very nature, substations and power lines (e.g., transformers, fencing, towers and conductors) tend to be large and exposed, and thus, difficult to either hide from view or blend into the background; this tendency increases in magnitude the closer the facilities are to viewers.

The APMs that are applicable to the aesthetic resources analysis are provided in Table 3.1-4. The project proponents will implement the following APMs.

Table 3.1-4. Applicant Proposed Measures for Aesthetics

APM No.	Description
	AESTHETICS
APM AES-1	**Substation Hardscaping.** Decorative rock and/or other hardscape landscaping will be installed between Estrella Substation and Union Road.
APM AES-2	**Light and Glare Reduction.** Construction lighting and permanent substation exterior lighting will be selectively placed and shielded to minimize nighttime glare.

3.1.4.3 Potential Impacts

Project impacts related to aesthetics and visual resources were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line. Approximately 3.5 miles of the new 70 kV power line segment will follow or parallel existing utility lines,while the remaining 3.3 miles will introduce lines and poles to new areas. The new 70 kV power line and reconductoring segments will use specular wire to aid in visibility for aircraft traversing the area and to allow birds to adjust to the new facilities. While the specular wire will weather over several seasons to a dull patina over the long term, the specular wire will be more visible in the foreground to residences and motorists in the short term.

The impact analysis considers impacts to aesthetics that could occur when the project includes changes to the view or views that seem uncharacteristic or appear out of place, discordant, or distracting. The degree of the visual impact depends upon how noticeable the adverse change may be. The noticeability of a visual impact is a function of project features, context, and viewing conditions (refer to Section 3.1.2.2, Aesthetics Contributing Factors Summary). Impacts on visual resources within the study area could result from various activities including: substation construction, structure and line construction, establishment of construction staging areas and access roads, presence of the built facilities, and project operation and maintenance.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The estimated visual impacts of this future project are briefly discussed where the analysis would differ from that of the project. A simulation illustrating Estrella Substation with future distribution is provided from KOP 1.

Visual Simulations and Visual Change

Visual Simulations

Visual simulations were prepared to illustrate "before and after" visual conditions in the project area, as seen from the eight simulation KOPs. These simulations are presented in Figures 3.1-6 through 3.1-21, with presentations of existing "before" views and "after" views showing the visual simulations. Of the 41 KOPs considered in detailed analysis, nine KOPs were identified in the PEA to represent views seen by the greatest number of affected viewers, or from sensitive locations, such as residential areas (see Table 3.1-5, Summary of Simulation Views). These KOPs represent potentially sensitive receptor locations and key viewer groups.

Table 3.1-5. Summary of Simulation Views

KOP (see Figure 3.1-1)	Location	Visible Project Feature[1]	Figure Numbers
1	Union Road	Substation, Power line, Poles	3.1-6, 3.1-7a, 3.17-b
2	Union Road	Substation, Power line, Poles	3.1-8, 3.1-9
3	Barney Schwartz Park near Union Road	Power line, Poles	3.1-10, 3.1-11
4	Ramada within Barney Schwartz Park	Power line, Poles	3.1-12, 3.1-13
5	SR-46 near Union Road	Power line, Poles	3.1-14, 3.1-15
6	Private lane near North River Road	Power line, Poles	3.1-16, 3.1-17
7	Clubhouse Drive near golf course	Reconductor Power line, Poles	3.1-18, 3.1-19
8	Riverglen Drive	Reconductor Power line, Poles	3.1-20, 3.1-21

Visual Change

The following discussion contains an evaluation of the project's individual components' (i.e., substation, 230 kV interconnection, 70 kV power line—both new construction and reconductoring) potential for visual impacts on KOPs, as represented by the visual simulations.

Key Observation Point 1

KOP 1 is a public view looking northeast from the nearest residence to Estrella Substation, providing a close-range unobstructed view along Union Road (Figure 3.1-6, Key Observation Point 1: Existing Conditions, Looking Northeast). This view is representative of the eastbound motorists' point of view, and also of the nearest residence adjacent to the substation and Union Road. Existing high-voltage transmission lines and towers are visible in the middleground along

[1] Structure designs and heights will be confirmed during the final engineering phase of the project.

the left (north) side of Union Road, while existing wood distribution poles and accompanying overhead conductors are visible along the south side of the roadway. Vineyards are present to the north and south of the roadway. In addition, a metal pole fence associated with a residential driveway is visible on the right (north) side of Union Road.

- **Viewer Exposure: Moderate-to-High.** Because there is little screening by landforms or vegetation from this KOP, Estrella Substation, 230 kV interconnection, and the new 70 kV power line segment will be highly visible as seen looking northeast on Union Road. Number of viewers is considered moderate; viewers include travelers accessing residences and tourists on winery tours. For these traveling viewers, the duration of view is moderate due to speed of travel (generally, less than 20 seconds). However, for the residential viewers adjacent to Union Road, the duration of view will be extended.
- **Viewer Concern: High.** Although the visual character of this viewpoint already includes transmission lines and towers as well as wood distribution poles and overhead conductors, the substation site, 230 kV interconnection, and new 70 kV power line segment consists of vineyards, which have high scenic quality. For both travelers and residents adjacent to Union Road, viewer concern is considered high.
- **Visual Quality from KOP 1: Moderate.** The primary focal points of this landscape are the vineyards flanking Union Road as well as the existing high-voltage transmission line and lattice structures on the skyline to the north of Union Road. The existing wood distribution poles adjacent to the left side of Union Road are also visible in the foreground. The vineyards in this view increase the visual quality to high. All factors combine to create a visual quality that is considered moderate-to-high.
- **Overall Visual Sensitivity: Moderate-to-High.** For travelers on Union Road and the residential viewers in this vicinity, and from KOP 1 specifically, the moderate-to-high viewer exposure, high viewer concern, and moderate visual quality lead to moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics of the substation site, 230 kV interconnection, and new 70 kV power line segment construction.

  Visual Change: High. Figure 3.1-7a, Key Observation Point 1: Future Conditions with Project, Looking Northeast – Simulated View of Estrella Substation, is a simulation that depicts an unobstructed view of Estrella Substation. The visual change of the project will contrast with the landscape foreground, middleground, and background views. Overall, the substation will create high visual contrast, create some view blockage, and will dominate the view. The 230 kV interconnection and new 70 kV power line segment construction will create minor contrast, create minimal view blockage, and will not dominate the view. There are already utility lines at this location, and the new 70 kV power line segment will follow the existing utility corridor. While visual changes from the 230 kV interconnection and the new 70 kV power line segment construction are considered minor, the overall visual change at KOP 1 is high due to the transition from a vineyard into an electrical substation.

Key Observation Point 2

KOP 2 is a public view looking west from Union Road, providing a close-range view of existing conditions along Union Road (Figure 3.1-8, Key Observation Point 2: Existing Conditions, Looking West). This view is representative of the westbound motorists' point of view toward the substation site, 230 kV interconnection, and new 70kV power line segment. Existing high-voltage transmission lines and towers are visible in the middleground along the right (north) side of Union Road, while existing wood distribution poles and accompanying overhead conductors are visible overhead and in the foreground, along the north side of the roadway. Vineyards are present to the north of the roadway. In addition, a mature tree is visible on the right (north) side of Union Road, while on the left side the road is an embankment and a pasture fence.

- **Viewer Exposure: Moderate-to-High.** Because there is little screening by landforms or vegetation from this KOP, Estrella Substation and the new power line will be a visual change and will be highly visible as seen looking west on Union Road. The visual change is resultant from the conversion of vineyard into a substation. The number of viewers is considered moderate; viewers include travelers accessing residences and tourists on winery tours. For these traveling viewers, the duration of view is minor (less than 10 seconds) due to speed of travel and road curvature along Union Road.
- **Viewer Concern: High.** Because the visual character of this viewpoint already includes transmission lines and towers as well as wood distribution poles and overhead conductors, the 230 kV interconnection and new 70 kV power line segment does not represent a significant change. However, the substation site presently consists of grape vines which have high scenic quality, and this will change once the vines are removed and the substation is constructed. For both travelers and residents adjacent to Union Road, viewer concern is considered high.
- **Visual Quality from KOP 2: Moderate.** The primary focal points of this landscape are the vineyard to the north of Union Road as well as the existing high-voltage transmission lines on the skyline to the north of Union Road. In the skyline above, existing overhead conductors and wood distribution poles are visible and prominent in the foreground; the addition of the 230 kV interconnection and new 70 kV power line segment will not change the skyline view. Along the right shoulder of Union Road is a skirt of un-landscaped gravel. The vineyard in this view increases the visual quality to high. All existing factors combine to create a visual quality that is considered moderate-to-high.
- **Overall Visual Sensitivity: Moderate-to-High.** For travelers on Union Road, and from KOP 2 specifically, the moderate-to-high viewer exposure, high viewer concern, and moderate visual quality lead to moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics of the project.

  Visual Change: High. Figure 3.1-9, Key Observation Point 2: Future Conditions with Project, Looking West – Simulated View of Estrella Substation, is a simulation that depicts a mostly unobstructed view of Estrella Substation and an obstructed view of the 230 kV interconnection and new 70 kV power line segment. The visual change of the project will contrast with the landscape foreground, middleground, and background views. Overall, the substation will create high visual contrast, create some view blockage, and will dominate the view. The 230 kV interconnection and new 70 kV power line segment will not create visual contrast, as the new infrastructure will be screened by the substation structures, and therefore will create minimal view blockage, and will not dominate the view.

Figure 3.1-6. Key Observation Point 1: Existing Conditions, Looking Northeast

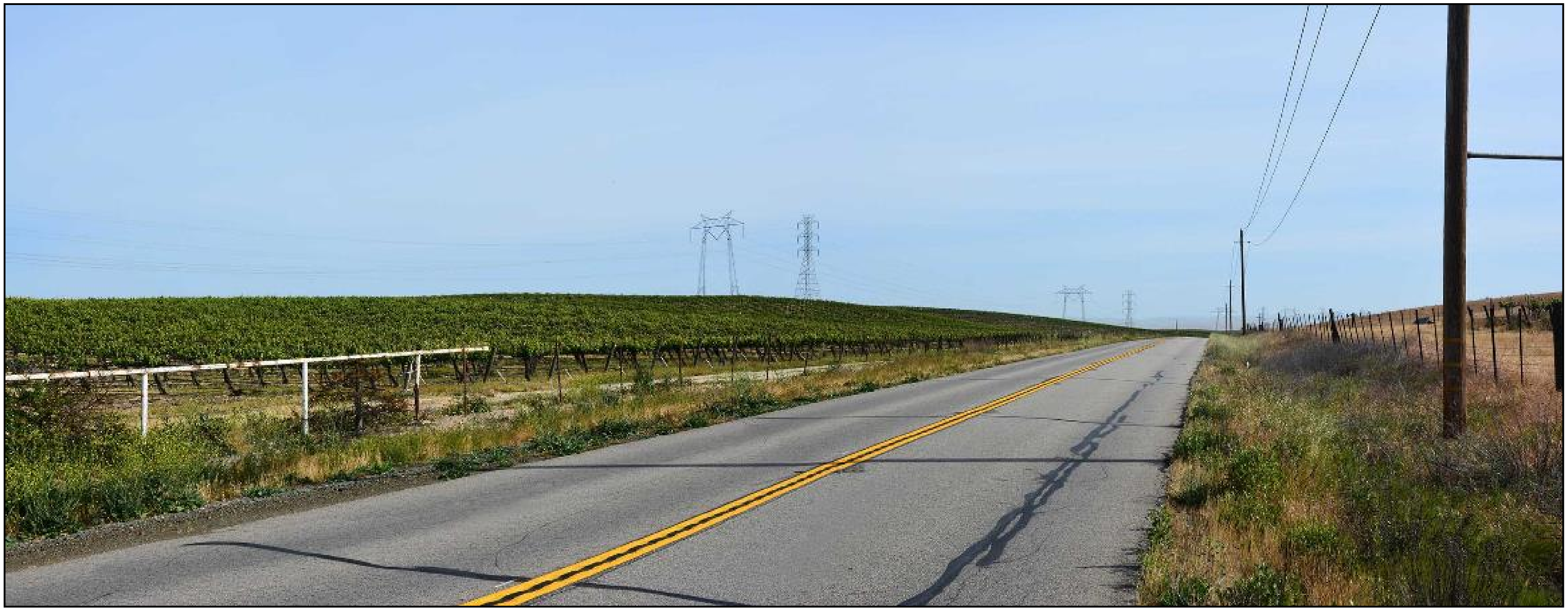


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Figure 3.1-7a. Key Observation Point 1: Future Conditions with Project, Looking Northeast – Simulated View of Estrella Substation

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Figure 3.1-7b. Key Observation Point 1: Looking Northeast – Simulated View of Estrella Substation with Future Distribution

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Figure 3.1-8. Key Observation Point 2: Existing Conditions, Looking West

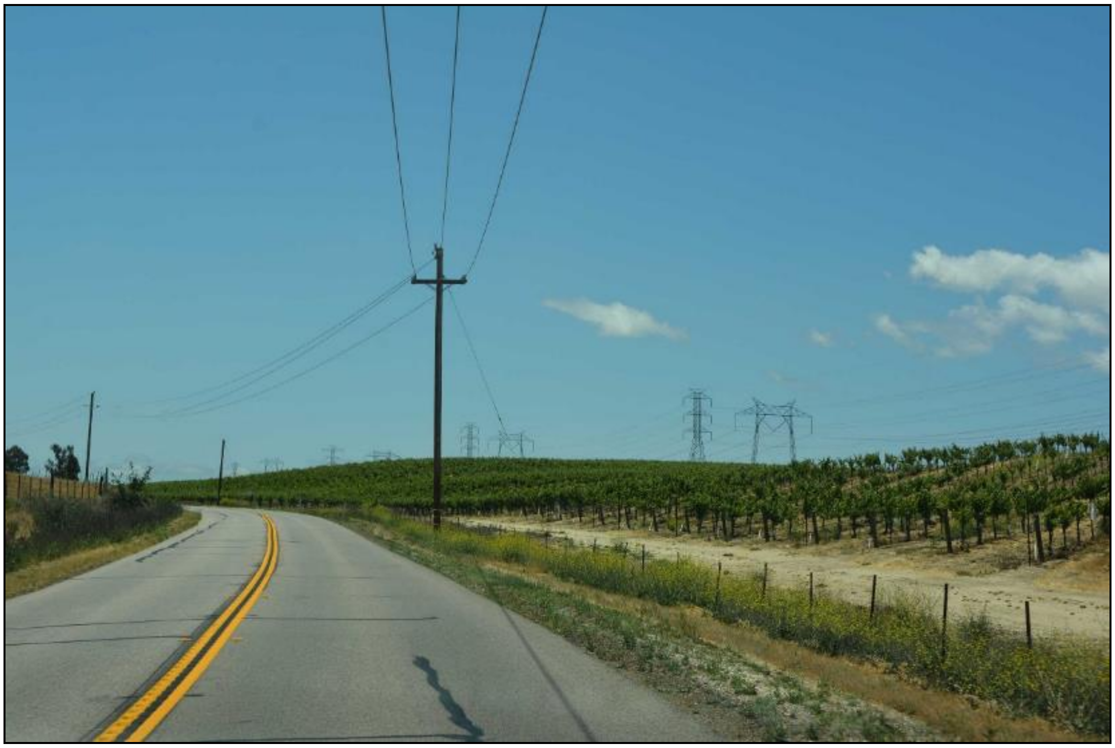

Figure 3.1-9. Key Observation Point 2: Future Conditions with Project, Looking West – Simulated View of Estrella Substation

Key Observation Point 3

KOP 3 is a public view looking west from Union Road in front of Barney Schwartz Park, providing a close-range view of existing conditions along Union Road (Figure 3.1-10, Key Observation Point 3: Existing Conditions, Looking West). This view is representative of the westbound motorists' point of view along the project area, as well as users of the city park. Existing wood distribution poles and accompanying overhead conductors are visible along the right (north) side of Union Road, as well as a fenced construction site. Ornamental trees, a sidewalk, parking lot, and stadium lighting are visible on the left side of the roadway.

- **Viewer Exposure: Moderate-to-High.** Because there is little screening by landforms or vegetation from this KOP, the new 70 kV power line segment will be highly visible as seen looking west along Union Road. Users of the city park will benefit from the slight screening provided by ornamental trees along the south side of Union Road. The number of viewers is considered moderate; viewers include travelers accessing residences and tourists on winery tours. For these traveling viewers, the duration of view is moderate (less than 1 minute) due to speed of travel on Union Road. However, for the viewers of the city park adjacent to Union Road, the duration of view will be extended.
- **Viewer Concern: Moderate.** Wood distribution poles and overhead conductors already exist adjacent to and above the road, which are visible to travelers along Union Road. Because the visual character of this viewpoint already includes utility poles and conductors, travelers can be expected to have moderate concern for visual impacts resulting from the project. Likewise, users of the city park are expected to have moderate concern for visual impacts of the project.
- **Visual Quality from KOP 3: Moderate.** The primary focal points of this landscape are Union Road and the landscaping on the left (south) side of the roadway. In the skyline above, existing overhead conductors and wood distribution poles on the right side of the roadway are visible in the foreground. On the north side of Union Road, a construction site detracts from the visual quality. All factors combine to create a visual quality that is considered moderate.
- **Overall Visual Sensitivity: Moderate.** For travelers on Union Road and users of Barney Schwartz Park, and from KOP 3 specifically, the moderate-to-high viewer exposure, moderate viewer concern, and moderate visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the project.
- **Visual Change: Moderate.** Figure 3.1-11, Key Observation Point 3: Future Conditions with Project, Looking West – Simulated View of the Power Line, is a simulation that depicts an unobstructed view of the existing power line along Union Road. As shown in Figure 3.1-10, existing conditions include power lines and poles. The new 70 kV power line segment will increase the pole height, resulting in a moderate change to the visual conditions. The visual change of the project will contrast with the landscape foreground views since the new poles will be considerably taller than the existing wood poles and, while noticeable, represent a moderate incremental visual change in the landscape. Overall, the new 70 kV power line segment will create moderate visual contrast, will not dominate the view, and will not create view blockage.

Figure 3.1-10. Key Observation Point 3: Existing Conditions, Looking West

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Figure 3.1-11. Key Observation Point 3: Future Conditions with Project, Looking West – Simulated View of the Power Line

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Key Observation Point 4

KOP 4 is a public view looking northeast to Union Street, from a ramada located within Barney Schwartz Park, providing a long-range view of existing conditions (Figure 3.1-12, Key Observation Point 4: Existing Conditions, Looking Northeast). This view is representative of the users of the city park's point of view. Ornamental trees, a sidewalk, recreational fields, buildings, and numerous 100-foot stadium light poles are visible in the foreground. Existing wood distribution poles and accompanying overhead conductors are slightly visible in the background.

- **Viewer Exposure: Low.** From this location, the new 70 kV power line segment visibility may be low due to screening by vegetation and topography, as well as the existing lighting infrastructure, which dominates the vertical view. The number of viewers may be moderate to high; viewers include users of the city park. The duration of view will be moderate. Based on the combination of these factors, the overall viewer exposure for KOP 4 is considered low.
- **Viewer Concern: Low.** Users of the city park already experience the visibility of 100-foot stadium light poles in the foreground, which has similar visual disturbance properties as distribution poles, across the park. Therefore, users can be expected to have low concern for visual impacts resulting from the project.
- **Visual Quality from KOP 117: Moderate.** The primary focal points of this landscape are the recreational fields and facilities within the city park. In the skyline above, the 100-foot stadium light poles are visible and dominant in the foreground and middleground, along with existing wooden distribution poles and overhead conductors. All factors combine to create a visual quality that is considered low-to-moderate.
- **Overall Visual Sensitivity: Low.** For users of the city park, and from KOP 4 specifically, the low viewer exposure, and low viewer concern and moderate visual quality lead to low overall visual sensitivity of the visual setting and viewing characteristics of the project.
- **Visual Change: Low.** Figure 3.1-13, Key Observation Point 4: Future Conditions with Project, Looking Northeast – Simulated View of the Power Line, is a simulation that depicts an obstructed view of the new power line as it runs along Union Road from across the Barney Schwartz Park. The visual change of the project will have low contrast with the landscape foreground views, particularly as the existing stadium light poles dominate the vertical view. The new 70 kV poles are considerably taller than the existing wood poles and the specular wires are more visible than the existing wires. While noticeable, these changes represent an incremental visual change in the landscape. Overall, the new power line will create low visual contrast, will not dominate the view, and will not create view blockage.

Key Observation Point 5

KOP 5 is a public view looking west along SR-46 towards Paso Robles, providing a close-range view of existing conditions for motorists travelling west along SR-46 (Figure 3.1-14, Key Observation Point 5: Existing Conditions, Looking West). This view is representative of the westbound motorists' point of view where the project crosses the highway. Existing wood distribution poles and accompanying overhead conductors are visible along the right (north) side of the roadway, as well as crossing the highway. Streetlights, a white pasture fence, billboards, residences, and mature trees are also visible on both sides of the highway.

- **Viewer Exposure: Moderate.** Because there is little screening by landforms or vegetation from this KOP, the new 70 kV power line segment will be highly visible as seen looking west along SR-46. The number of viewers is considered high; viewers include travelers to Paso Robles, or passing through to other cities in San Luis Obispo County, and may include local residents or tourists. For these traveling viewers, the duration of view is moderate (consisting of less than 20 seconds for KOP 5) due to speed of travel on SR-46. Based on the combination of these factors, the overall viewer exposure for KOP 5 is considered moderate.
- **Viewer Concern: Low-to-Moderate.** Travelers on SR-46 already experience the visibility of wood distribution poles and overhead conductors adjacent to and crossing the highway. Therefore, travelers can be expected to have low-to-moderate concern for visual impacts resulting from the project.
- **Visual Quality from KOP 5: Low-to-Moderate.** The primary focal points of this landscape are the pasture on the right (north) side of SR-46 and the highway itself. In the skyline above, existing overhead conductors and wood distribution poles on the right side of the roadway and crossing the highway are visible in the foreground and middleground, along with streetlights. All factors combine to create a visual quality that is considered low-to-moderate.
- **Overall Visual Sensitivity: Low-to-Moderate.** For travelers on SR-46, and from KOP 5 specifically, the moderate viewer exposure, and low-to-moderate viewer concern and visual quality lead to low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics of the project.
- **Visual Change: Moderate.** Figure 3.1-15, Key Observation Point 5: Future Conditions with Project, Looking West – Simulated View of the Power Line, is a simulation that depicts an unobstructed view of the new power line as it crosses SR-46. The visual change of the project will contrast with the landscape foreground views. The new 70 kV poles are considerably taller than the existing wood poles and, while noticeable, represent an incremental visual change in the landscape. Overall, the new power line will create low-to-moderate visual contrast, will not dominate the view, and will not create view blockage.

Figure 3.1-12. Key Observation Point 4: Existing Conditions, Looking Northeast

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Figure 3.1-13. Key Observation Point 4: Future Conditions with Project, Looking Northeast – Simulated View of the Power Line

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Figure 3.1-14. Key Observation Point 5: Existing Conditions, Looking West

Figure 3.1-15. Key Observation Point 5: Future Conditions with Project, Looking West – Simulated View of the Power Line

Key Observation Point 6

KOP 6 is a private view looking northwest from a private lane, providing a close-range view of existing conditions from a private agricultural field near River Road (Figure 3.1-16, Key Observation Point 6: Existing Conditions, Looking Northwest). This view is representative of the landowner's point of view, looking toward where the new 70 kV power line segment will connect to the existing power line segment being reconductored. Existing wood distribution poles and accompanying overhead conductors are visible crossing the agricultural field in the foreground, as well as the existing reconductoring line. US 101 is visible to the west in the middleground. In the background, mountains and foothills are visible, while trees and agricultural fields dominate the middleground. Residences and out-buildings are also visible in the middleground.

- **Viewer Exposure: Moderate-To-High.** Because there is little screening by landforms or vegetation from this KOP, the new 70 kV power line segment will be highly visible as seen looking across the field. The number of viewers is considered low; viewers include local residents. For these residential viewers, the duration of view is considered to be extended. Based on the combination of these factors, the overall viewer exposure for KOP 6 is considered moderate-to-high.
- **Viewer Concern: Moderate-To-High.** Wood distribution poles and overhead conductors, as well as the existing reconductoring segment, already exist along the private lane and cross the agricultural field (refer to Figure 3.1-1), though they do not dominate the view. Therefore, residents can be expected to have high concern for visual impacts resulting from the project.
- **Visual Quality from KOP 6: Moderate.** The primary focal points of this landscape are the agricultural fields in the foreground and the foothills to the west in the middleground, including US 101. Existing wood poles and distribution lines are visible throughout the middleground views, including the reconductoring segment. Expansive views of the mountains to the north increase the visual quality from this KOP. All factors combine to create a visual quality that is considered moderate.
- **Overall Visual Sensitivity: Moderate.** For landowners who use this private lane, and from KOP 6 specifically, the moderate-to-high viewer exposure, high viewer concern, and moderate visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the project.
- **Visual Change: High.** Figure 3.1-17, Key Observation Point 6: Future Conditions with Project, Looking Northwest – Simulated View of the Power Line, is a simulation that depicts an unobstructed view of the new power line as it connects to the reconductoring segment. The visual change of the new 70 kV power line segment will contrast with the landscape foreground views. The new poles are considerably taller (change in pole height may range from 20-30 feet) than the other existing wood poles and are an incremental but noticeable visual change in the landscape. Overall, the new power line will create moderate-to-high visual contrast, and, although the structures will appear dominant, they will not create view blockage.

Figure 3.1-16. Key Observation Point 6: Existing Conditions, Looking Northwest

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Figure 3.1-17. Key Observation Point 6: Future Conditions with Project, Looking Northwest – Simulated View of the Power Line

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Key Observation Point 7

KOP 7 is a public view looking west from Clubhouse Drive, providing a long-range view of existing conditions from across a field near River Road (Figure 3.1-18, Key Observation Point 7: Existing Conditions, Looking West). This view is representative of the public's point of view, looking toward where the reconductoring segment will occur. Existing wood poles and accompanying overhead conductors of the reconductoring segment are visible across the field in the foreground. In the background, mountains and foothills are visible, while trees, signage, and temporary barricades dominate the immediate foreground. Residences and out-buildings are visible in the middleground.

- **Viewer Exposure: Moderate-To-High.** Because there is little screening by landforms or vegetation from this KOP, the reconductored 70 kV power line segment will be highly visible as seen looking across the field. The number of viewers is considered moderate; viewers include local residents and members of the club and/or users of the golf course. For these viewers, the duration of view is considered to be extended. Based on the combination of these factors, the overall viewer exposure for KOP 7 is considered moderate-to-high.
- **Viewer Concern: Moderate-To-High.** The reconductoring segment with wood distribution poles and overhead conductors already exist (refer to Figure 3.1-1), though they do not dominate the view. Therefore, viewers can be expected to have moderate-to-high concern for visual impacts resulting from the project.
- **Visual Quality from KOP 7: Moderate.** The primary focal points of this landscape are the field in the foreground and the foothills to the west in the middleground. The existing wood poles and distribution lines of the reconductoring segment are visible throughout the foreground views. Views of the mountains and foothills to the west increase the visual quality from this KOP. All factors combine to create a visual quality that is considered moderate.
- **Overall Visual Sensitivity: Low.** For residents and users of the club or golf course, and the low viewer exposure, and moderate viewer concern and moderate visual quality lead to low overall visual sensitivity of the visual setting and viewing characteristics of the project.
- **Visual Change: Low.** Figure 3.1-19, Key Observation Point 7: Future Conditions with Project, Looking West – Simulated View of the Power Line, is a simulation that depicts a view of the new power line as it runs along River Road from across the field on Clubhouse Drive. The visual change of the project will contrast with the landscape foreground views. The reconductoring segment poles will be considerably taller than the existing wood poles, and the specular wires will be more visible than the existing wires. The new poles will be a brown color, similar to the color of the current wood poles. While noticeable, these changes represent an incremental visual change in the landscape. Overall, the new power line will create low visual contrast, will not dominate the view, and will not create view blockage.

Figure 3.1-18. Key Observation Point 7: Existing Conditions, Looking West

Figure 3.1-19. Key Observation Point 7: Future Conditions with Project, Looking West – Simulated View of the Power Line

Key Observation Point 8

KOP 8 is a public view looking south along Riverglen Drive, providing a close-range view of existing conditions along Riverglen Drive (Figure 3.1-20, Key Observation Point 8: Existing Conditions, Looking South). This view is representative of the southbound motorists' point of view along the project area, as well as residents of the surrounding area. Existing wood poles and accompanying overhead conductors of the reconductoring segment are visible along the right (west) side of Riverglen Drive. Ornamental trees, sidewalks, and residences are visible on both sides of the roadway.

- **Viewer Exposure: High.** From this location, the reconductoring segment visibility will be high due to the reconductor occurring in the foreground. The number of viewers will be high; viewers include residents and motorists. The duration of view will be high. Based on the combination of these factors, the overall viewer exposure for KOP 8 is considered high.
- **Viewer Concern: Moderate-To-High.** The reconductoring segment, including existing wood poles and overhead conductors, already exist along Riverglen Drive (refer to Figure 3.1-1), though they do not dominate the view. Therefore, residents can be expected to have high concern for visual impacts resulting from the project.
- **Visual Quality from KOP 8: Low.** The primary focal points of this landscape are Riverglen Drive and the landscaping on both sides of the roadway. In the skyline above, existing overhead conductors and wood distribution poles on the right side of the roadway are visible in the foreground. All factors combine to create a visual quality that is considered low.
- **Overall Visual Sensitivity: Moderate.** For travelers on Riverglen Drive and residents of the surrounding areas, and from KOP 8 specifically, the high viewer exposure, moderate-to-high viewer concern, and low visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the project.
- **Visual Change: Moderate.** Figure 3.1-21, Key Observation Point 8: Future Conditions with Project, Looking South – Simulated View of the Power Line, is a simulation that depicts an unobstructed view of the existing power line along Riverglen Drive. As shown in Figure 3.1-20, existing conditions include power lines and poles. The reconductoring segment will increase the pole height, resulting in a moderate change to the visual conditions. The visual change of the project will contrast with the landscape foreground views since the reconductoring segment poles will be considerably taller than the existing wood poles and the specular lines will be more visible than the existing lines, while noticeable, represent a moderate incremental visual change in the landscape. Overall, the reconductoring segment will create moderate visual contrast, will not dominate the view, and will not create view blockage.

Figure 3.1-20. Key Observation Point 8: Existing Conditions, Looking South

Figure 3.1-21. Key Observation Point 8: Future Conditions with Project, Looking South – Simulated View of the Power Line

Aesthetics-a: Have a substantial adverse effect on a scenic vista? *(No Impact)*

CEQA requires the project be evaluated as to whether its implementation has a substantial, adverse effect on a scenic vista. For purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. A "designated scenic vista" is an area offering a distant public view for which an agency or department actively manages the scenic vista to maintain or protect the public view by providing public access, information, safety, and protection of resources (e.g., signage, kiosk, parking area, safety fencing/rails). An "identified scenic vista" is an area offering a distant public view that is not actively managed by any entity, but still offers a public view along or through an opening or corridor that is recognized and valued for its scenic quality.

There are no designated or identified scenic vistas within the project viewshed; therefore, there will be no substantial adverse effect on a scenic vista from construction, operation, or maintenance of the project. There will be no impact.

Aesthetics-b: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? *(Less than Significant)*

Construction

Estrella Substation

There are no scenic resources (trees, rock outcroppings, historic buildings within a designated or eligible State scenic highways) at Estrella Substation; therefore, there will be no substantial adverse effect from the construction of the substation on these resources.

Power Line Route

Although there are no scenic highways in the project area, SR-46 is eligible for designation as a scenic highway, as identified in Section 263 of Caltrans Streets and Highways Code (Caltrans 2008). The new 70 kV power line segment crossing SR-46 will co-locate with the existing distribution line. The new poles will be taller than the existing poles and will be composed of weathered steel; the wood distribution poles will be removed. Despite the increase in size of the poles and the change in materials, the new poles will not substantially affect available views or impair, obscure, or screen features that are not currently subject to similar treatment by existing infrastructure from SR-46. Locating new poles at the same location (or further away) will minimize the visual impact by locating the construction activities associated with pole placement further from view of SR-46. The increased size of the new poles will likely be noticeable to passing motorists since the existing power line is skylined and structurally prominent as a result of the viewing angle from SR-46. The new 70 kV power line segment will repeat the existing visual condition by adding to the existing crossing at this location; the new power line in the same location will mimic the existing line's effect on passing motorists. This minor change in the view is nonetheless consistent with power and distribution lines that are existing features in the landscape and contribute to the overall scenic quality of available views and will essentially replicate the existing view blockage condition in the landscape. Pole placement along the ridgelines south and north of the eligible state scenic highway will avoid elevated terrain where possible.

There are no historic resources or buildings associated with SR-46 (or otherwise) at the location where the new 70 kV power line segment crosses SR-46.

As such, the quality of existing views available from this scenic roadway at the intersection of the project will not be substantially affected by the proposed power line replacement, and the eligibility of SR-46 for future official state designation will not be affected. Therefore, impacts to views from a scenic highway due to construction of the power line will be less than significant.

Operation and Maintenance

Estrella Substation

There are no scenic resources (trees, rock outcroppings, historic buildings within a designated or eligible State scenic highways) at Estrella Substation; therefore, there will be no substantial adverse effect from the operation and maintenance of the substation on these resources.

Power Line Route

The existing conditions for scenic resources (trees, rock outcroppings, historic buildings within a designated or eligible State scenic highways) include current practices along the powerlines; these will continue. No additional impacts to aesthetic resources will result from operation and maintenance of the power line route.

Aesthetics-c: Substantially degrade the existing visual character or quality of the site and its surrounding? *(Less than Significant)*

Construction

Estrella Substation

Activities associated with construction of Estrella Substation will be concentrated at the approximately 15-acre parcel, and will be visible to motorists, tourists, and residents. During construction, visual impacts will include the presence of workers, temporary structures, construction equipment, and vehicles at the substation site. The substation is adjacent to a public roadway (Union Road), but some screening is provided due to topography.

Estrella Substation will be located in an area where wine and agricultural production activities typically employ the use of trucks and other equipment that is not unlike construction equipment used for Estrella Substation. In addition, although residences, vineyards, wineries, tasting rooms, and the Union Road Wine Trail are located in the project vicinity, nearby residences, wineries, and tasting rooms are largely screened by topography or vegetation. Temporary impacts to existing visual character and quality could occur because of an influx in construction vehicles, equipment, and workers to the landscapes where overhead existing electrical infrastructure is located but no surface electrical infrastructure currently exists. In addition, the establishment of the 230 kV and 70 kV substations work areas and site, as well as the new 70 kV power line segment require the removal of existing vineyards, vegetation removal, and site grading preparation activities. However, construction activities will be transient and of short duration as construction progresses, and given the other activities in the area, construction will not substantially degrade the existing visual character or quality, and visual impacts from construction will be less than significant. APM AES-2 (Light and Glare Reduction) will reduce temporary, less-than-significant impacts from any nighttime work.

Simulations demonstrate that the construction of Estrella Substation will result in permanent changes that will be noticeable from KOPs 1 and 2 (see Visual Simulations section above). However, the existing visual quality of the site includes the presence of existing 230 kV and 500 kV transmission lines and supporting structures as well as local distribution lines and poles that are also existing features in the landscape. In addition, due to surrounding agricultural operations, there is frequent use of Union Road by agricultural trucks and surrounding fields by farm machinery. Despite these factors, the permanent changes to the visual character will be apparent, and the new equipment (e.g., substation facilities, towers, fences, and conductors) on the site will appear inconsistent with the scale of the surrounding rural agricultural and residential landscape. Changes resulting from the addition of surface electrical infrastructure will be permanent, and there will be moderate-to-high viewer exposure, high viewer concern, moderate visual quality, and moderate-to-high visual sensitivity. Thus, absent applicant-proposed minimization measures, the introduction of the substation facilities would substantially change the existing visual character.

With implementation of APM AES-1 (Substation Hardscaping) and APM AES-2 (Light and Glare Reduction), permanent impacts will be reduced to less than significant. APM AES-2 will minimize any contrast to the visual character by decreasing glare from nighttime substation lighting so that the visual quality is increased, while at the same time APM AES-1 will reduce impacts to viewer exposure, viewer concern, and the visual change by installing decorative rock and/or other hardscape landscaping between Estrella Substation and Union Road.

While travelers along Union Road will be exposed to relatively brief views of the substation, 230 kV interconnection, and new 70 kV power line segment, nearby residences and some wineries/tasting rooms will be exposed for long periods of time to the noticeable visual contrast in form and line when compared to the existing conditions. Travelers will have a brief view of the substation and utility lines due to travel speeds on Union Road and the relatively brief exposure that the curvy, narrow Union Road offers at the substation site. Mesh screening, specular and dulled finishes, hardscaping of the area between the substation and Union Road (APM AES-1), and lighting and glare reduction (APM AES-2), as well as locating the substation, 230 kV interconnection, and new 70 kV power line segment as near to the existing utilities as can be safely constructed, will minimize the impact from changes to the existing visual character. Thus, APM AES-1(Substation Hardscaping) and APM AES-2 (Light and Glare Reduction) will be particularly important to minimize the impact to long viewer exposures.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. As described in Chapter 2, the future transformer will be located either wholly within the substation site surrounded by existing infrastructure. The route for the future distribution feeders is uncertain and the feeders are expected to follow existing roadways and previously disturbed areas. The future transformer and distribution facility construction will not create high contrast, will create minimal view blockage, and will not dominate the view. The overall visual change at KOP 1 for the future transformer and distribution facilities is low due to the existing substation that will be in operation, the existing high-voltage transmission lines, and the existing wooden distribution poles along Union Road. Construction of the future transformer and distribution feeders will not substantially degrade the existing visual character or quality of the site and surroundings. Therefore, impacts will be less than significant.

Power Line Route

Construction of the new 70 kV power line segment and the 70 kV reconductoring segment is expected to take approximately 7 months, but considerably less time at any one location along the power line. The project involves minimal grading and vegetation removal for both new construction and reconductoring. Some screening along the power line route will occur due to topography, vegetation, and structures.

The project will introduce approximately 7 miles of new power line, of which about 3.5 miles will be co-located with existing utility line facilities, and about 3.3 miles will be located in areas with no existing facilities. Construction impacts on visual resources will result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the power line route. Construction impacts on visual resources will also result from the temporary alteration of landforms and vegetation along the easement. Vehicles, heavy equipment, project components, and workers will be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site clean-up and restoration. Construction equipment and activities will be seen by various viewers in close proximity to the power line route including rural residents as well as municipal residents, travelers, tourists, and recreationists on SR-46 and local roads, including Union Road, Golden Hill Road, and North River Road. View durations from these local roads will vary from minor, where along areas of curvy roads or where the project crosses over a road, to extended, where facilities and activities remain in the field of view of travelers along areas that parallel a straight road. However, construction activities along the power line route will be transient and of short duration as construction progresses.

As a result, affected viewers will be aware of the temporary nature of project construction impacts, which will decrease their sensitivity to the impact. The resulting visual impacts will be adverse but less than significant in both the new construction and pole replacement along the power line.

For the approximately 3 miles of reconductoring, installation of new poles will replicate the existing view blockage condition in the landscape due to the pre-existing nature of the existing power line being recondutored.

Simulations demonstrate that the new construction of the power line will be visible and noticeable from KOPs 3, 4, 5, and 7, and the reconductoring segment from KOPs 8 and 9 (see Visual Simulations and Visual Change section above). Specular conductor, which is shiny when installed but weathers naturally to a dull patina, will be used for the substation, new 70 kV power line segment, and reconductoring segment. After a few seasons, the conductor will weather so that it blends in with the other nearby lines, but will afford a time of higher visibility to allow local pilots and birds time to adjust to the new utility lines.

Overall, changes brought about by the construction of the power line will not substantially degrade the existing visual character or quality of the landscape setting, and impacts will be less than significant. Implementation of APM AES-2 (Light and Glare Reduction) will further reduce already less-than-significant impacts to the existing visual character or quality.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will occur through remote monitoring stations. Both the 70 kV and 230 kV substations will require routine and periodic (typically on a monthly basis) equipment testing, pole brushing, and other ongoing maintenance tasks, similar to those currently conducted at the existing Paso Robles substation, also located in San Luis Obispo County (see Figure 3.10-1, Existing Land Uses and Planning Areas, in Section 3.10, Land Use and Planning). However, these activities will not increase in duration or intensity in such a way as to alter or adversely affect the existing landscape beyond what occurred during construction, and therefore will not exceed the significance threshold, resulting in less-than-significant impacts. With implementation of APM AES-1 (Material Selection) and APM AES-2 (Light and Glare Reduction), impacts to visual character due to operation and maintenance will remain less than significant.

Power Line Route

Operation and maintenance of the power line route will not substantially degrade the existing visual character or quality of the right-of-way and its surroundings. No impacts will occur.

Aesthetics-d: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? *(Less than Significant)*

Construction

Construction of the project will have less-than-significant impacts associated with lighting or glare impacts and will not adversely affect day or nighttime views in the area.

Estrella Substation

Should nighttime work be needed during construction of Estrella Substation, portable temporary lighting will be used to illuminate the immediate work area within the substation worksite. Current project plans call for construction activities to take place during daylight hours and for nighttime construction activities to be avoided, if possible. In the event nighttime construction is required, the scope of construction activities will be limited and will be temporary and short term. Thus, impacts associated with creating a substantial source of light or glare will be less than significant. Additionally, implementation of APM AES-2 (Light and Glare Reduction) will further reduce these already less-than-significant impacts.

Power Line Route

Should nighttime work be needed during construction of the power line route, portable temporary lighting will be used to illuminate the immediate work area. Current project plans call for construction activities to take place during daylight hours and for nighttime construction activities to be avoided if possible. In the event nighttime construction is required for safety or clearance reasons, the scope of construction activities will be limited, temporary, and short term, and will not persist for an extended period of time, as construction activities will move linearly along the power line route. Implementation of APM AES-2 (Light and Glare Reduction) will further reduce already less-than-significant impacts. Impacts related to nighttime work will be less than significant.

The new 70 kV power line and reconductoring segments will be built with specular conductor, which is shiny when installed but weathers to a dull patina after a few seasons. Specular conductor will allow pilots and birds traversing the area to more easily identify the new lines. Although the lines will initially be more visible, they will not create a source of substantial glare that will adversely affect daytime views. Impacts will be less than significant.

Operation and Maintenance

Estrella Substation

The limited permanent lighting or light sources that will be required for operation of the project will include safety and security lighting at the substation; these lights will be shielded to reduce impact on nighttime views. The project is in a rural setting with little roadway lighting adjacent to the site. Existing lighting sources tend to be localized and are associated with residences. The project will include permanent nighttime lighting on some structures at the substation, but these lights will not shine outward from the substation per Dark Sky rating recommendations (e.g., no lighting will be shining on Union Road). Extra lighting that may be needed for operation and maintenance will have a manual switch to allow the lighting to be turned off when not in use. Nighttime maintenance work is not typically planned, but may occur in an emergency; as such, nighttime lighting for work will be infrequent, if it occurs at all. The impact will be less than significant and implementation of APM AES-2 (Light and Glare Reduction) will further reduce this already less-than-significant impact.

Power Line Route

No new lighting is proposed along the power line route, and any nighttime emergency work will be rare. Impacts will be less than significant.

3.1.5 References

California Department of Transportation (Caltrans). 2008. *Scenic Highway Guidelines*. October 2008. Online: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/guidelines/scenic_hwy_guidelines_04-12-2012.pdf. Accessed on July 20, 2016.

____. 2011. California Scenic Highway Mapping System. Updated September 7, 2011. Online: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed on July 20, 2016.

City of El Paso de Robles. 2003. *City of El Paso de Robles General Plan. Conservation Element.* Prepared by Rincon Consultants, Inc. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/ConservationElement.pdf. Accessed July 25, 2016.

County of San Luis Obispo. 1980. *Framework for Planning, Inland – The Land Use and Circulation Elements of the County of San Luis Obispo General Plan*. September 1980. As amended through April 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/inlandframework.pdf. Accessed July 25, 2016.

____. 2010. *County of San Luis Obispo General Plan, Conservation and Open Space Element*. May 2010. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed July 25, 2016.

Federal Highway Administration. 2015. *Guidelines for Visual Impact Assessment for Highway Projects*. Available at: https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.pdf. Accessed October 9, 2016.

Smardon, RC, J.F. Palmer, and J.P. Felleman, editors. 1986. *Foundations for Visual Project Analysis*. New York: Wiley.

U.S. Bureau of Land Management (BLM). 1986. *Manual H-8410-1 – Visual Resources Inventory*. January 17, 1986. Online: http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.31679.File.dat/H-8410.pdf. Accessed July 21, 2016.

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3.2 AGRICULTURE AND FORESTRY RESOURCES

3.2.1 Introduction

This section describes existing conditions and potential impacts on agricultural and forest resources as a result of construction, operation, and maintenance of the project. The analysis concludes that implementation of Applicant-Proposed Measures (APMs) will further reduce already less-than-significant impacts on agricultural and forest resources. The project's potential effects on agricultural and forest resources were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.2-1, CEQA Checklist for Agriculture and Forestry Resources, and discussed in more detail in Section 3.2.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.2-1. CEQA Checklist for Agriculture and Forestry Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FOREST RESOURCES				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code	☐	☐	☐	☒

Table 3.2-1. CEQA Checklist for Agriculture and Forestry Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.2 Regulatory Background and Methodology

3.2.2.1 Regulatory Background

Federal

No federal regulations related to agricultural or forest resources are applicable to the project.

State

Williamson Act

The California Land Conservation Act, better known as the Williamson Act (California Government Code Section 51200 et seq.), is designed to preserve agricultural and open space land. It establishes a program of private landowner contracts that voluntarily restrict land to agricultural and open space uses. The program is a two-step process involving the establishment of an agricultural preserve by the local legislative body and then approval of a land conservation contract. In return, Williamson Act parcels receive a lower property tax rate consistent with their actual use instead of their market rate value.

Lands under contract may also support uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" subject to the contract (California Government Code Section 51201[e]). Under Government Code Section 51238, electric facilities are a compatible use.

Farmland Mapping and Monitoring Program

The California Department of Conservation (DOC), under the Division of Land Resource Protection, has established the Farmland Mapping and Monitoring Program (FMMP) to monitor the conversion of the state's farmland to and from agricultural use. Land is rated based on the land capability classification system, California's Revised Storie Index, and recent land use.

FMMP designations include: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, Other Land, and Water.

Local

Because CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local discretionary regulations. This section includes a summary of local zoning in the project area for agricultural use, and is provided for informational purposes and to assist with the CEQA review process.

The project extends through the County of San Luis Obispo (County) Agriculture land use designation, and through the City of El Paso de Robles (City) Agriculture land use designation and Agriculture zoning designation.

County of San Luis Obispo Rules of Procedure to Implement the California Land Conservation Act of 1965

The objective of the County of San Luis Obispo Agricultural Preserve Program, as provided by the California Land Conservation Act of 1965 or Williamson Act, is to protect agricultural lands for continued production of food and fiber and limited types of land devoted to open-space and recreational uses. The County's *Rules of Procedure to Implement the California Land Conservation Act of 1965* provide the standards for property eligibility and land use restrictions under the program. They also provide procedures for terminating contracts (through a non-renewal or cancellation process) and monitoring the agricultural preserve program.

To qualify for an agricultural preserve and land conservation in San Luis Obispo County, land must meet the following criteria:

1. ***General Plan Land Use Designations.***
   Land to qualify for an agricultural preserve may be located in any rural land use designation of the San Luis Obispo County General Plan if it meets preserve and ownership size eligibility requirements. The California Land Conservation Act of 1965 requires that the establishment of any agricultural preserve within the county must be found to be consistent with the county general plan. Most eligible land is already located in the Agriculture category of the Land Use Element or Agriculture designations of the 1998 Agriculture Element and 2010 Conservation and Open Space Element. When not already included in agricultural designations, all lands for which agricultural preserves are approved based on agricultural uses will be placed in these agricultural

designations by general plan amendments initiated by the county within one year after the agricultural preserves are established.

2. ***Agricultural Preserve Size***. *The minimum agricultural preserve size shall be 20 or 40 acres for prime land as defined below. For nonprime land, the minimum preserve size shall be 160 acres for non-irrigated Classes 3 and 4 soils and 320 acres for Classes 6 and 7 land. Preserves may consist of either a single ownership or contiguous ownerships of at least 10 acres per ownership if each ownership meets the qualification requirements in subsection B1c. The California Land Conservation Act of 1965 requires that an agricultural preserve, which may consist of one ownership or two or more contiguous ownerships, shall be at least 100 acres in size unless the county finds that smaller preserves are necessary due to the unique characteristics of the agricultural enterprises in the area and that the establishment of preserves of less than 100 acres is consistent with the county general plan. The county's interpretation of Agricultural Preserve Amended March 2015 Rules of Procedure 5 uniqueness provides for the establishment of agricultural preserves smaller than 100 acres if the preserve consists of 20 or 40 acres or more of prime land as defined below.*

   Prime Land: *The definition of prime land, which is used to determine the eligibility of agricultural preserves less than 100 acres in size for the San Luis Obispo County agricultural preserve program, means any one of the following:*

   1. *Land with a Natural Resources Conservation Service land capability rating of Class 1 or Class 2 (all lands to qualify for these ratings must be irrigated), or*
   2. *Other irrigated lands that have suitable soils, climate and water supply which sustain irrigated crops valued according to one of the following criteria:*
      a. *Land planted in crops which have produced an annual gross value of $1,000 or more per acre for three of the previous five years.*

      b. *Land planted in orchards, vineyards and other perennial crops that would produce an average annual gross value of $1,000 or more per acre if in full commercial bearing.*
   3. *High Productivity Prime Land (Small Specialized Farms).*

      Minimum Preserve Size: 20 acres gross.

Minimum Soil Requirements: 10 of the 20 acres must be Class 1 or Class 2 soils fully planted in irrigated crops (excluding home sites, accessory structures and land not suited as farmland).

Productivity Requirements: Must include land planted in crops which have produced an annual gross value of $2,000 or more per acre for three of the previous five years.

Minimum Parcel Size for Division or Conveyance:
Class 1 – 20 acres
Class 2 – 40 acres

3. ***Qualification Requirements for Individual Ownerships**. An individual property must satisfy the minimum standards in Table 1* [Table 3.2-2, below]*, Column 2, to qualify for the agricultural preserve program.*

Table 3.2-2, Column 3, shows minimum parcel sizes for new land divisions related to the agricultural quality and use of lands subject to land conservation contracts and farmland security zone contracts. Minimum parcel size standards in Table 3.2-2 are deemed appropriate for San Luis Obispo County and are more restrictive than minimum parcel sizes indicated in the California Land Conservation Act of 1965. The Table 3.2-2, Column 3, standards also signify minimum parcel sizes that can be separately conveyed or retained under single ownerships, subject to certain exceptions noted in footnote 3 of the table. Existing land conservation contracts for agricultural preserves prohibit separate conveyance of parcels smaller than the minimum parcel sizes applied to the agricultural preserves, except that the total land described in any contract may be conveyed in its entirety (County of San Luis Obispo 1972).

Table 3.2-2. Minimum Ownership Sizes for Qualification and Minimum Parcel Sizes for Conveyance of Land and New Land Divisions

Natural Resources Conservation Service Land Capability Classification	**Minimum Acreage[1]**	
	To Qualify[2]	**To Convey Existing Parcels[3] or Create New Parcels**
20- or 40-Acre Minimum Preserve Size[4]		
Class 1[5]	10	20
Class 2[5]	10	40
Irrigated Classes 3, 4, 6, 7 with Orchards or Vineyards[6]	20	40
All Other Irrigated Classes 3 and 4	40	40
Mixed Irrigated and Non-irrigated Use[7]	10/20/40	80/160

Table 3.2-2. Minimum Ownership Sizes for Qualification and Minimum Parcel Sizes for Conveyance of Land and New Land Divisions

160- or 320-Acre Minimum Preserve Size		
Non-irrigated Classes 3 and 4	160	160
Classes 6 and 7	320[8]	320
Class 8	NA[9]	320

[1] Portions of a property with different land capability ratings and agricultural uses will be considered to determine qualification and appropriate minimum parcel size(s) per Appendix Section E1 of the County Rules of Procedure.

[2] Qualification also requires compliance with the minimum agricultural preserve size standards, where a single ownership or two or more contiguous ownerships totaling less than 100 acres must contain at least 40 acres of prime land as defined in the Rules of Procedure.

[3] The total land area described in any land conservation contract may be conveyed in its entirety to a new owner even if the property is smaller than the minimum parcel size for new land division. For example, a property under contract which originally qualified on the basis of 100 acres or more of rangeland, but is less than the 320-acre minimum parcel size that was applied for conveyance, may be conveyed as a single unit to a new owner. The intent of the restriction on conveyance of land is to require that separate sale(s) of existing parcels of record must be equal to or larger than the minimum acreage requirements for new land divisions except as provided above and immediately below. Further, note that the remaining acreage must also still meet the minimum acreage requirement for new land division except as provided immediately below.

For properties that qualified with acreage in excess of the minimum required in column 3 for creation of new parcels or conveyance of existing ones, an existing parcel or grouping of contiguous parcels of record may be separately conveyed smaller than the minimum acreage requirements for new land divisions only where the resulting ownerships, including the acreage retained, each comply with the minimum acreage requirements to qualify and are located wholly or partly within one mile of an urban reserve line or adjacent to a village reserve line designated by the Land Use Element and Local Coastal Plan.

[4] Land must meet the definition of prime land.

[5] Land must be irrigated to qualify for a Class 1 or 2 rating.

[6] The orchard or vineyard must be already planted.

[7] The above minimum acreage qualification requirements for irrigated uses are to be used. Appendix Section E1 is to be used to determine qualification and appropriate minimum parcel size(s) for properties with mixed land capabilities and agricultural uses.

[8] The property must contain at least 100 acres of land that is well to moderately-suited for rangeland as described in the Natural Resources Conservation Service soils reports or designated as "highly productive rangeland" in the Conservation and Open Space Element of the County General Plan.

[9] Class 8 land is not to be used in determining minimum acreage requirements for qualification.

[10] The minimum preserve size for non-irrigated Classes 3 and 4 soils is 160 acres and the minimum preserve size for the non-irrigated Classes 6 and 7 soils is 320 acres.

Source: County of San Luis Obispo 1972.

County of San Luis Obispo General Plan

The *Agriculture Element* of the *County of San Luis Obispo General Plan* establishes goals, policies, and implementation measures to enable the long-term stability and productivity for those areas of the county with productive farms, ranches and soils.

AGP11: Agricultural Water Supplies.

a. *Maintain water resources for production agriculture, both in quality and quantity, so as to prevent the loss of agriculture due to competition for water with urban and suburban development.*

AGP12: Pest, Vertebrate, and Weed Management.

a. Assure that pests such as squirrels and noxious weeds are managed on county owned properties so as to avoid impacts on agriculture.

b. Encourage the use of integrated pest management techniques to manage pests, vertebrates, and weeds on both public and private lands.

c. Support and promote programs that help landowners learn pest control methods, utilizing the expertise of the U.C. Cooperative Extension and the County Agriculture Department.

AGP17: Agricultural Buffers.

a. Protect land designated Agriculture and other lands in production agriculture by using natural or man-made buffers where adjacent to non-agricultural land uses in accordance with the agricultural buffer policies adopted by the Board of Supervisors.

AGP18: Location of Improvements.

a. Locate new buildings, access roads, and structures so as to protect agricultural land.

AGP24: Conversion of Agricultural Land.

a. Discourage the conversion of agricultural lands to non-agricultural uses through the following actions:

1. *Work in cooperation with the incorporated cities, service districts, school districts, the County Department of Agriculture, the Agricultural Liaison Board, Farm Bureau, and affected community advisory groups to establish urban service and urban reserve lines and village reserve lines that will protect agricultural land and will stabilize agriculture at the urban fringe.*

2. *Establish clear criteria in this plan and the Land Use Element for changing the designation of land from Agriculture to non-agricultural designations.*

3. *Avoid land redesignation (rezoning) that would create new rural residential development outside the urban and village reserve lines.*

4. *Avoid locating new public facilities outside urban and village reserve lines unless they serve a rural function or there is no feasible alternative location within the urban and village reserve lines.*

The *Conservation and Open Space Element* establishes goals, policies, and implementation measures for the preservation of natural resources, cultural resources, scenic beauty, recreation, and open space.

> ***Soil Resources***
> ***Goal SL 1. Soils will be protected from wind and water erosion, particularly that caused by poor soil management practices.***
>
> ***Policy SL 1.1. Prevent Loss of Topsoil in All Land Uses.*** *Minimize the loss of topsoil by encouraging broad-based cooperation between property owners, agricultural operators, agencies, and organizations that will lead to effective soil conservation practices on all lands, including County-controlled properties.*
>
> ***Goal SL 3. Important agricultural soils will be conserved.***
>
> ***Policy SL 3.1. Conserve Important Agricultural Soils.*** *Conserve the Important Agricultural Soils mapped in Figure SL-1 and listed in Table SL-2. Proposed conversion of agricultural lands to non-agricultural uses shall be evaluated against the applicable policies in this COSE and in the Agriculture Element, including policies such as Policies AGP 18 and AGP 24.*
>
> ***Implementation Strategy SL 3.1.1 Non-agricultural structures.*** *Coordinate with the Agricultural Commissioner's Office to limit placement of non-agricultural structures and impermeable surfaces on certain Important Agricultural Soils of San Luis Obispo County, consistent with Policies AGP 18 and AGP 24 in the Agriculture Element, when discretionary approval is required.*
>
> ***Implementation Strategy SL 3.1.5 Mitigation of impacts to Important Agricultural Soils.*** *Establish mitigation strategies for loss of Important Agricultural Soils through measures such as agricultural easements.*
>
> ***Water Resources***
> ***Policy WR 1.7 Agricultural operations.*** *Groundwater management strategies will give priority to agricultural operations. Protect agricultural water supplies from competition by incompatible development through land use controls.*

City of El Paso de Robles General Plan

The *Land Use Element* of the *City of El Paso de Robles General Plan* includes goals, policies, and action items to preserve and enhance the quality of the community through appropriate land use planning.

> ***POLICY LU- 2E: "Purple Belt" (Open Space/Conservation Areas Around the City).*** *Create a distinct "Purple Belt" surrounding the City by taking actions to retain the rural, open space, and agricultural areas.*
>
> ***Action Item 1.*** *Coordinate with the County and private organizations to identify boundaries of and obtain support for a "purple-belt" that buffers the eventual*

edge of the City through the preservation of existing, and encouragement of future agriculture and open space.

Action Item 2. *As feasible, acquire development rights/easements within the designated purple belt area. Use these development rights/easements to limit land uses within the designated purple belt to agricultural and/or open space.*

Action Item 3. *Take steps to ensure that the County retains surrounding lands in very low-density rural residential, open space (including natural resource), and agricultural uses. Oppose the creation of new parcels within the County.*

Action Item 4. *Implement strategies that help preserve or protect agriculture beyond the City limits, including:*

- *Establishment of agricultural buffer easements, berms and/or vegetative screening, on property proposed for urban development as a condition of approval of discretionary development applications.*
- *Implement the City's adopted "right-to-farm" ordinance.*
- *Participation in the Williamson Act and other farmland preservation programs.*

Policies in the *Open Space Element* are specifically intended to preserve and enhance the quality of the community through appropriate preservation and management of open space within and surrounding Paso Robles.

POLICY OS-1A: Open Space/Purple Belt. *Develop an open space plan/program for establishing an open space/ purple belt (agricultural preserve area) surrounding the City.*

Action Item 8. *Investigate and implement as appropriate and feasible with San Luis Obispo County, establishment of permanent agricultural and open space areas that buffer communities from continuous urbanization and promote efficient growth patterns.*

Action Item 9. *Take steps to ensure that the County retains surrounding lands in very low-density rural residential, open space (including natural resource), and agricultural uses. Oppose the creation of new parcels within the County.*

Action Item 10. *Implement strategies that help preserve or protect agriculture, including:*

- *Establishment of agricultural buffer easements, berms and/or vegetative screening, on property proposed for urban development as a condition of approval of discretionary development applications.*
- *Implement the City's adopted "right-to-farm" ordinance.*

- *Participation in the Williamson Act and other farmland preservation programs.*

3.2.2.2 Methodology

A project study area for agricultural resources was established to identify the agricultural setting and resources in the project vicinity. The study area for Estrella Substation is approximately 15 acres and includes the 230 kV interconnection and all temporary and permanent disturbance work areas. The study area for the power line route generally includes a 400-foot corridor along the route (200 feet on either side of the power line). The project study area was slightly expanded in some areas to account for anticipated design variability in the project alignment (refer to Figure 3.2-1, FMMP Important Farmlands Map, and Figure 3.2-2, Williamson Act Contract Lands, in Section 3.2.3.2, Local Setting, below). This study area was used to define existing agricultural resources and the environmental setting.

Areas of temporary and permanent disturbance associated with project construction and operation were identified within the project study area to analyze the potential project-related impacts on agricultural resources. The area of permanent disturbance at Estrella Substation includes the entire substation site, totaling 15.2 acres. Areas of temporary disturbance at Estrella Substation include 1.9 acres that will be disturbed temporarily during installation of the 230 kV interconnection and the underground fiber optic cable link that will extend outside of the main 15-acre substation site, as well as 6.2 acres surrounding the substation site.

Along the power line route, it is assumed that temporary disturbance and impacts could occur anywhere within the existing and/or proposed utility easements, as well as any identified pull site locations, helicopter landing zones, and staging areas. In general, utility easements for the project range from 70 feet wide (approximately 35 feet on either side of the power line) in the area of the 230 kV interconnection and the new 70 kV power line segment, and about 30 feet to 40 feet wide (approximately 15 to 20 feet on either side of the power line) along the reconductoring segment of the power line.

Areas of permanent disturbance along the power line route were defined to include the physical location of all poles to be installed, as well as a 10-foot radius permanent work clearance area in grasslands around each pole location supporting distribution equipment.

Information about existing agricultural uses in the project study area was obtained through a review of local planning documents and online resources, and during site visits conducted in April and July of 2016. Information on farmlands, soil types, and Williamson Act lands was obtained from DOC FMMP data and maps, County Williamson Act maps and data, aerial photographs, the County and City General Plans, land use and zoning ordinances, and the San Luis Obispo County Interactive GIS database.

The mapped agricultural designations and Williamson Act lands were compared with the substation site and project study area, with a focus on Estrella Substation and the proposed locations of temporary and permanent disturbance in and around the substation site.

The impact analysis considers whether implementation of the project will result in significant impacts to agricultural and forestry resources. The analysis focuses on reasonably foreseeable effects of the project as compared with baseline conditions, and the analysis uses significance criteria based on the CEQA Appendix G Guidelines. The potential direct and indirect effects of the project are addressed through qualitative and quantitative analyses. Applicable APMs are identified and defined to avoid or reduce impacts to agricultural and forestry resources.

3.2.3 Environmental Setting

3.2.3.1 Regional Setting

According to the most recent U.S. Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) Census of Agriculture, California is the leading agriculture-producing state, with a total market value of approximately $42.6 billion in agricultural products sold in 2012 (USDA NASS 2014). The California Department of Food and Agriculture (CDFA) reported a record $54 billion in sales in 2014, a 5% increase over 2013. California remained the number one state in cash farm receipts, comprising nearly 13% of the U.S. total (CDFA 2015).

Within California, San Luis Obispo County ranked 15th in 2014 among state counties in overall agricultural production (CDFA 2015). Total crop value in the county in 2015 totaled $828.8 million, an 8% decrease from $900 million in sales in 2014, which is attributable to the cumulative impacts of the ongoing drought, growing conditions for major crops, markets, and water availability (County of San Luis Obispo Department of Agriculture/Weights and Measures 2016). The top two commodities in the County in 2015 (for the second year in a row) were strawberries and wine grapes, which accounted for 45% of the total combined value of the county's agricultural industry. Strawberry sales totaled $222 million (27%) and wine grapes were valued at $146 million (18%). Other 2015 top 10 commodities in San Luis Obispo County included: cattle and calves ($66 million), broccoli ($47.8 million), vegetable transplants ($38.7 million), cut flowers ($27.6 million), head lettuce ($25.5 million), leaf lettuce ($16.9 million), avocados ($16.6 million), and lemons ($16.4 million). These top 10 commodities account for 75% of the total combined value of the county's agricultural industry (County of San Luis Obispo Department of Agriculture/Weights and Measures 2016).

According to the most recent FMMP data available (2012), there are approximately 406,124 acres of Important Farmland located throughout San Luis Obispo County, which represents approximately 21.5% of the land within the San Luis Obispo County boundaries (DOC 2012). FMMP acreages in the county are shown in Table 3.2-3, FMMP Inventory of San Luis Obispo County, and reflected in Figure 3.2-1, FMMP Important Farmlands Map.

Table 3.2-3. FMMP Inventory in San Luis Obispo County (2012)

Category	Acres
Prime Farmland	40,860
Farmland of Statewide Importance	20,884
Unique Farmland	39,979

Table 3.2-3. FMMP Inventory in San Luis Obispo County (2012)

Category	Acres
Farmland of Local Importance	304,401
Important Farmland Subtotal	*406,124*
Grazing Land	1,183,035
Agricultural Land Subtotal	*1,589,159*
Urban and Built-up Land	45,573
Other Land	244,024
Water Area	8,780
Total Area Inventoried	**1,887,536**

Source: DOC 2012.

3.2.3.2 Local Setting

Local environmental setting information in this section includes the approximately 15-acre Estrella Substation site and the study area along the power line route. Note that, although the information and analysis in this section considers the entire study area, much of this area will ultimately be unaffected by the project, as land uses under the power line will predominantly remain unchanged (refer to Section 3.2.4, Applicant-Proposed Measures and Potential Impacts, for additional information).

Existing Agricultural Uses and Zoning

Estrella Substation

Estrella Substation will be located on one of five contiguous parcels comprising Steinbeck Vineyards & Winery. Steinbeck Vineyards & Winery comprises 114 total acres north of Union Road and supports approximately 76 acres of Cabernet Sauvignon, 11 acres of Chardonnay, 11 acres of Muscat Canelli, 6 acres of Syrah, and 10 acres of Zinfandel (Paso Robles Wine Country 2016).

Estrella Substation will be located in an approximately 15-acre portion of an existing 98-acre parcel (APN 015-053-011) currently supporting vineyards and surrounded on all sides by vineyards and other agricultural uses (e.g., wineries, orchards, dry farming, grazing). Virtually all 15 acres are currently planted with vineyards, except for limited areas of disturbed road shoulder north of Union Road and an internal access road running along the west boundary of the site.

The substation site and all surrounding areas are within the County's Agriculture land use designation (refer to Figure 3.10-2, City and County General Plan Land Use Designations Map).

The County Agriculture land use designation where Estrella Substation will be located is described below:

- Agriculture (AG)
  - Areas of prime agricultural soils, and other productive and potentially productive lands located inside and outside of urban and village reserve lines where land use conflicts with other adjacent uses can be mitigated.
  - Areas for agricultural processing and its support services.
  - Areas where the residential uses allowed are for property owners or employees actively engaged in agricultural production on the same property.
  - All lands previously designated as agricultural preserve, whether or not under contract, according to the adopted agricultural preserve rules of procedure.
  - Lands that may be eligible for agricultural preserve if the rules of procedure are satisfied.
  - Areas where existing land uses are mainly truck crops, specialty crops, row and field crops, irrigated crops and pasture, irrigated vineyards and orchards, dry farm orchards and vineyards, dry farm and grain, grazing and rangeland.
  - Areas where parcel sizes and ownership patterns are sufficiently large to make agricultural operations economically viable, given other features such as soil types, water supply, topography, and commercial potential through optimum management.
  - Areas with an existing pattern of smaller parcels that cannot support self-sustaining agricultural operations, but where physical factors of soil, water supply and topography would support agricultural production (County of San Luis Obispo 2010).

Power Line Route

A portion of the new 70 kV power line segment in unincorporated areas of San Luis Obispo County east of Paso Robles extends through approximately 2 miles of existing agricultural uses, including predominantly vineyards, as well as limited areas of existing orchards, dry farming, and grazing. A portion of the new power line in this unincorporated area is located within an existing utility corridor that supports the existing 500 kV and 230 kV lines for approximately 0.3 mile. The remaining portion of the power line route will be constructed within a new utility corridor, for which new easements will be obtained.

Within Paso Robles, the 70 kV power line segment crosses or runs adjacent to some small vineyards, dry farming, grazing, and other agricultural accessory uses within rural residential areas. Northwest of Paso Robles, the new 70 kV power line segment crosses large lot rural residential areas in the unincorporated county supporting vineyards, dry farming, row crops, and grazing. Parcels immediately adjacent to the new 70 kV power line segment's point of connection to the existing San Miguel-Paso Robles 70 kV power line currently support irrigated row crops and dry farming. Identified temporary staging areas and pull sites located along the new 70 kV power line segment are also comprised of vineyards, row crops, and dry farming.

The northernmost 0.3 mile of the reconductoring segment extends through agriculture and large lot residential areas in Paso Robles supporting row crops, dry farming, grazing, and other agriculture accessory uses. The remainder of the reconductoring segment extends through heavily urbanized areas in the city with minimal existing agricultural uses, though some larger parcels support limited grazing and/or equestrian uses and dry farming (particularly in an area approximately 0.25 mile south of Creston Road).

The entire length of the new 70 kV power line segment in the unincorporated county is within the County's Agriculture land use designation (though a portion of the power line also extends along the boundary between an Agriculture and Residential Rural designation). Within Paso Robles, a portion of the new power line segment extends adjacent to a Residential Agriculture (RA) zoning designation in the eastern portion of the city, and the northernmost 1,000 feet (0.2 mile) of the reconductoring segment extend through the City's Agriculture land use and zoning designations (Figure 3.10-2, City and County General Plan Land Use Designations Map, and Figure 3.10-3, City Zoning Designations Map). Agricultural land use and zoning designations in the city that will be crossed by the project are described below:

- **Agriculture (AG)**. Per Chapter 21.16J – Agricultural District, Section 21.16J.010 of the City Zoning Ordinance, the purpose of the Agriculture (AG) district is "to allow and protect the operation of agricultural uses, maintain open space, and provide viable land uses in areas impacted by airport operations consistent with the land use element of the general plan." (City of El Paso de Robles 2016)

- **Residential Agriculture (RA)**. Per Chapter 21.16, District Use Tables, Section 21.16.200 and 220 of the City Zoning Ordinance, special permitting requirements and land use development standards have been established for the RA zoning district, including a 3-acre minimum lot size, 40% maximum lot coverage, 30-foot maximum building height, 100-foot minimum lot width, 25-foot front yard setbacks, and 20-foot side- and rear-yard setbacks. These development standards are generally more protective of accessory agricultural or open space uses than other residential zones, where more intensive land use development is permitted (City of El Paso de Robles 2016).

FMMP Important Farmlands

Estrella Substation

Approximately 77% of the Estrella Substation site consists of lands mapped as Unique Farmland by the FMMP. The remainder of the Estrella Substation site consists of small areas of Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land, all of which are generally located along the southern site boundary adjacent to Union Road (refer to Figure 3.2-1, FMMP Important Farmlands Map). FMMP areas within the substation site, including the 230 kV interconnection and fiber optic cable link, are listed in Table 3.2-4, FMMP at Estrella Substation, and shown in Figure 3.2-1, FMMP Important Farmlands Map.

Figure 3.2-1. FMMP Important Farmlands Map

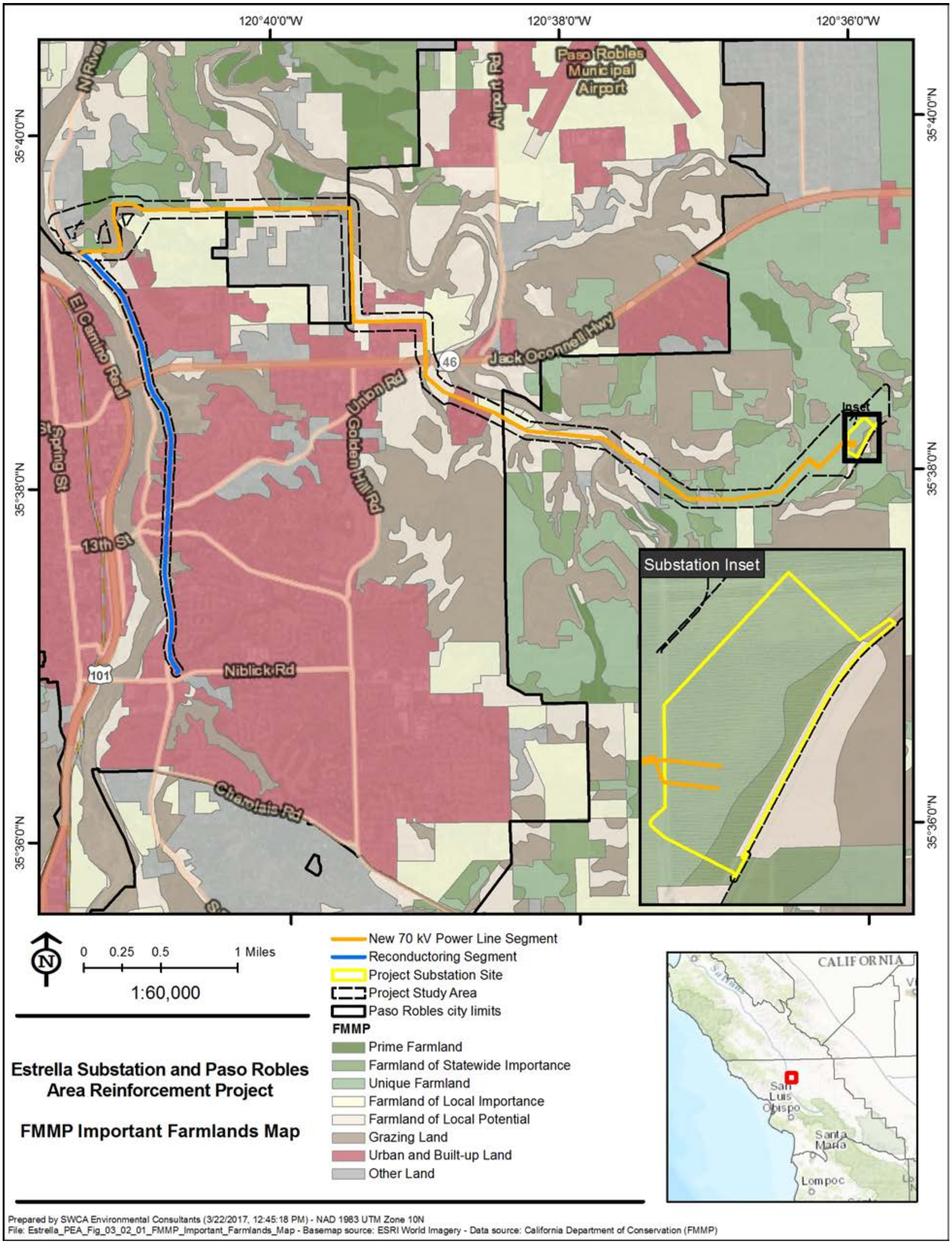


Table 3.2-4. FMMP at Estrella Substation

FMMP Category	Area (approximate acres)	Percent of Substation Site
Farmland of Statewide Importance	2.66	17%
Unique Farmland	11.73	77%
Farmland of Local Potential	0.70	5%
Grazing Land	0.11	Less than 1%
Total	**15.21**	**100%**

Source: DOC 2015.

Power Line Route

Some portion of the power line route extends through every mapped category of the FMMP. The approximately 7-mile-long new 70 kV power line segment extends predominantly through areas of Farmland of Local Potential, Unique Farmland, and Grazing Land, and the 3-mile-long reconductoring segment extends predominantly through Grazing Land and Urban and Built-up Land.

Williamson Act

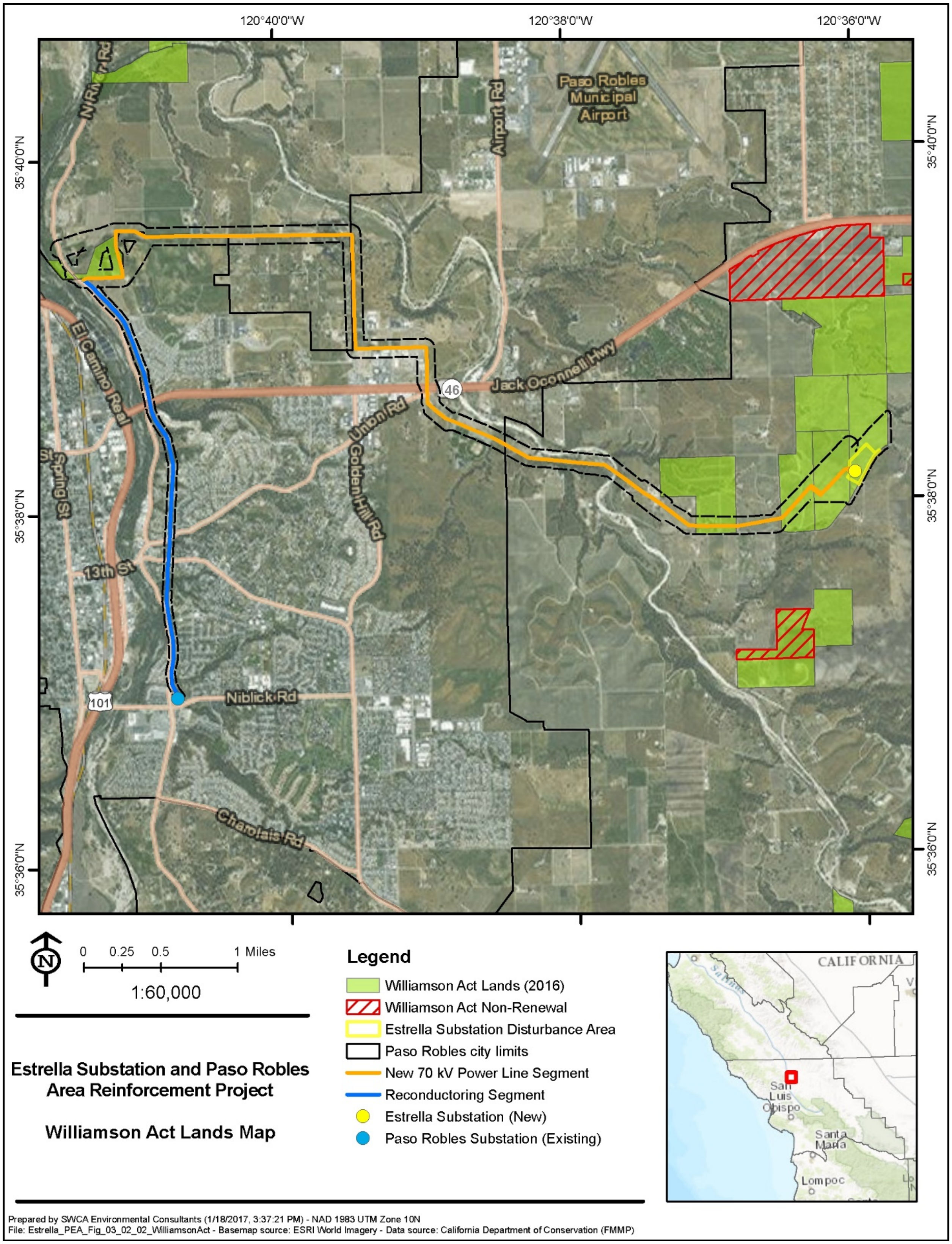
Estrella Substation

The 98-acre Steinbeck Vineyards & Winery parcel that Estrella Substation will be located on, including all 15 acres of the substation site, is currently subject to a Williamson Act contract. Parcels immediately adjacent to the west and north of the Steinbeck parcel are also under Williamson Act contracts, as well as additional non-contiguous parcels located less than 1 mile to the west, north, and south of the Steinbeck parcel. Williamson Act contracted parcels are shown in Figure 3.2-2, Williamson Act Lands Map. The Williamson Act contract at the Estrella Substation site is active and no non-renewal or cancellation process has been initiated.

Power Line Route

Approximately 5,550 linear feet of the power line route (about 11% of the total length of the power line route) extend through parcels currently subject to a Williamson Act contract. Approximately 95% (5,270 linear feet) of the crossed Williamson Act contracted lands are located along the new 70 kV power line segment and approximately 5% (280 linear feet) are located along the reconductoring segment. Williamson Act lands along the new 70 kV power line segment are generally located along the easternmost portion of the route, near Estrella Substation, and in areas northwest of Paso Robles near the new power line's point of connection to the existing 70 kV San Miguel-Paso Robles power line. Along the reconductoring segment, Williamson Act contracts are in place for parcels between the point of connection to the existing San Miguel-Paso Robles 70 kV power line and the northern city limits of Paso Robles.

Figure 3.2-2. Williamson Act Lands Map



No Williamson Act contracts along the power line route are currently in the non-renewal process. Williamson Act contracted lands are shown in Figure 3.2-2.

Soils

Land Capability Classification System

The USDA Natural Resources Conservation Service (NRCS) assesses the potential agricultural productivity and limitations of different soils by utilizing both the land capability classification (LCC) system (described in the National Soil Survey Handbook Part 622.02 [NRCS 2016a]) and the Important Farmland Inventory. The LCC system classifies soil units based on their capability to produce commonly cultivated crops and pasture plants without deteriorating over a long period of time (see Table 3.2-5, Land Capability Classifications). The system is subdivided into capability class and capability subclass. Capability classes range from 1 to 8, with soils having the slightest limitations to agricultural use receiving the highest ratings (Class 1). LCC sub-classes are utilized to further characterize soils within a specific class by designating the main hazard by which a particular soil is limited by reference to a letter, including: erosion (e); water (w); shallow, droughty, or stony (s); and very cold or very dry (c). Class 1 soils have no sub-classes because soils of this type have few limitations. Some soils are given different classifications for irrigated and non-irrigated conditions.

Table 3.2-5. Land Capability Classifications

Class	Definition
1	Slight limitations that restrict use.
2	Moderate limitations that reduce the choice of plants or require moderate conservation practices.
3	Severe limitations that reduce the choice of plants or require special conservation practices, or both.
4	Very severe limitations that restrict the choice of plants or require very careful management, or both.
5	Little or no hazard of erosion, but other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
6	Severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
7	Very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.
8	Limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply for esthetic purposes.

Source: NRCS National Soil Survey Handbook, Title 430-VI (NRCS 2016a).

LCCs of soil types at the substation site, including the 230 kV interconnection and the underground fiber optic cable link, are listed in Table 3.2-6, Land Capability Classifications at Estrella Substation, below. No Class 1 or Class 2 soils are present within the substation site. Within the project study area along the power line route, approximately 12.8% (57 acres) contain

Class 1 soils and approximately 13.1% (59 acres) consist of Class 2 soils. Refer to Section 3.6, Geology and Soils, and Figure 3.6-2, Soils Types, for additional information on project area soils.

Table 3.2-6. Land Capability Classifications at Estrella Substation

Soil Unit	Area (approximate acres)	Area (%)	LCC	
			irrigated	non-irrigated
102 – Arbuckle-Positas complex, 9 to 15 percent slopes	6.36	42%	4e	4e
106 – Arbuckle-San Ysidro complex, 2 to 9 percent slopes	3.36	22%	3e	4e
179 – Nacimiento-Los Osos complex, 9 to 30 percent slopes	5.45	36%	4e	4e
Total	**15.17**	**100%**	**--**	**--**

Source: NRCS 2016b.

3.2.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts on agriculture and forest resources based on Appendix G of the CEQA Guidelines, provide APMs to reduce impacts, and assess potential project-related construction, operations, and maintenance impacts on agricultural and forest resources.

3.2.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project-related impacts on agricultural and forest resources were evaluated for each of the criteria listed in Table 3.2-1, CEQA Checklist for Agriculture and Forestry Resources, as discussed in Section 3.2.4.3, Potential Impacts.

3.2.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs.

Table 3.2-7. Applicant Proposed Measures for Agriculture and Forestry Resources

APM No.	Description
	AGRICULTURE AND FOREST RESOURCES
APM AG-1	**Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities.** The project proponents will work with farmers, ranchers, and landowners to schedule project-related construction activities in a manner that avoids conflicts with harvest and planting periods, to the extent feasible, and in a manner that minimizes disruptions to agricultural operations. Access across active fields shall be negotiated with the landowner in advance of any construction activities. Coordination will include advance notice of construction activities and reporting of complaints, as follows: • Prior to construction, the project proponents will give at least 30 days advance notice of the start of construction-related activities. Notification shall be provided by mailing notices to all properties within 300 feet of the substation or power line route. The notice will describe where and when construction activity is planned and shall provide contact information for a point of contact for complaints related to construction activities. • Prior to commencing ground disturbing activities, the project proponents will submit a copy of the template used for the notification letter and a list of the landowners notified to CPUC.

3.2.4.3 Potential Impacts

Project direct and indirect impacts on agriculture and forest resources were evaluated using the CEQA significance criteria, as discussed below. There are no forests, forest land, or timberlands in the vicinity of the project. Therefore, the analysis in this section focuses on agricultural resources. This section evaluates potential project impacts from both the construction phase and operation and maintenance of the project.

The permanent footprint of the project includes all areas that will be permanently converted as a result of the project. The temporary footprint of the project includes additional areas of disturbance associated with particular construction components, including but not limited to the use of temporary work areas, the installation of crossing guard structures, the use of staging areas, the construction of temporary access roads, and the use of helicopter landing zones.

All but the northernmost 0.3 mile of the reconductoring segment is within heavily urbanized areas of Paso Robles, supporting minimal or no agricultural resources or uses. Therefore, the analysis of construction-related impacts focuses on Estrella Substation, the new 70 kV power line segment, and the northernmost 0.3 mile of the reconductoring segment. Operation and maintenance activities required for the reconductoring segment will not change from those currently required for the existing system; thus, no operation- or maintenance-related impacts to agricultural resources will occur along the reconductoring segment. Therefore, the analysis of operation and maintenance impacts focuses on Estrella Substation and the new 70 kV power line route.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to agriculture and forestry resources are anticipated at this time as a result of this future project.

Ag-Forest-a: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use? *(Less than Significant)*

Areas of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance mapped through the FMMP are shown in Figure 3.2-1, FMMP Important Farmlands. The total amount of farmland that will be permanently converted as a result of the project is estimated in Table 3.2-8, Permanent Farmland Conversions.

Table 3.2-8. Permanent Farmland Conversions

FMMP Category	Estrella Substation (acres)	Power Line Route (acres)	Total Acres
Prime Farmland	--	<0.01	<0.01
Farmland of Statewide Importance	2.66	<0.01	2.66
Unique Farmland	11.73	0.04	11.77
Farmland of Local Importance	--	0.06	0.06
Farmland of Local Potential	0.70	0.21	0.91
Grazing Land	0.11	0.30	0.41
Total	**15.20**	**0.67**	**15.87**

Source: DOC 2015.

The project will result in the total conversion of approximately 0.01 acres of Prime Farmland, 2.66 acres of Farmland of Statewide Importance, 11.77 acres of Unique Farmland, and 0.41 acre of Grazing Land. Based on the most current FMMP inventory, there are approximately 40,860 acres of Prime Farmland, 20,884 acres of Farmland of Statewide Importance, and 39,979 acres of Unique Farmland in San Luis Obispo County (DOC 2012). CPUC, in PG&E's Shepherd Substation Project (A.10-12-003, approved May 23, 2013), recognized a standard of significance based on California Government Code Section 51222 (*see* Shepherd Substation Project IS/MND (May, 2012), pp. 3.2-8–3.2-9), which identifies 10 acres as the size of a parcel large enough to sustain agricultural use in the case of prime agricultural land and 40 acres for Farmland of Statewide Importance, Unique Farmland, and non-Prime Williamson Act lands (CPUC 2013).

Construction

Estrella Substation

Construction of Estrella Substation will require the removal of approximately 15 acres of existing vineyards at the substation site. The entire substation site will be graded and developed as part of substation construction. The site will be fenced and areas outside of equipment foundations will be covered with 6 inches of crushed rock. Therefore, conversion of agricultural resources will be permanent and no agricultural uses within the substation site will continue during or following construction of the substation.

Areas in the vicinity of Estrella Substation support intensive agricultural operations and numerous local policies are in place to protect the agricultural resources and character of this area (refer to Section 3.2.2.1, Regulatory Background, above). However, CPUC has exclusive jurisdiction over the project and, therefore, the project is not subject to local land use and zoning regulations or discretionary permits.

Farmland to be converted is relatively small in comparison to the vast agricultural operations and vineyards in the Paso Robles area. The remainder of the Steinbeck Vineyard and Winery will remain in agricultural production and the project will not expand urban uses that will degrade the rural agricultural nature of the area. The amount of permanently converted farmland will be less than the 10 acres of Prime Farmland and 40 acres of Farmland of Statewide Importance, Unique Farmland, and non-Prime Williamson Act lands identified as the threshold for sustainable agricultural uses in California Government Code Section 51222. As a result, impacts will be less than significant.

Implementation of APM AG-1 (Coordinate with Landowners, Farmers, and Ranchers Regarding Construction and Maintenance Activities) will further reduce already less-than-significant impacts by ensuring the project proponents are coordinating with landowners to avoid and minimize impacts to agricultural operations.

Construction of Estrella Substation will also result in temporary conversion and impacts to additional areas supporting agricultural uses, affecting approximately 6.18 acres. These additional areas include the establishment of temporary staging and storage areas, installation of the underground fiber optic cable link, and disturbance areas associated with installation of the 230 kV interconnection structures, adjacent to Estrella Substation. Table 3.2-9, Temporary Impacts to Farmlands, provides a summary of impacted farmlands from construction of Estrella Substation.

Temporary farmland impacts will occur in areas mapped as Farmland of Statewide Importance (approximately 0.32 acre), Unique Farmland (approximately 5.84 acres), and Grazing Land (approximately 0.02 acre). Areas of temporary disturbance may be replanted and/or restored at the conclusion of construction activities at the discretion of the farmer or property owner. As a result, impacts on farmland from construction of the substation will be less than significant.

Table 3.2-9. Temporary Impacts to Farmlands

FMMP Category	Estrella Substation (approximate acres)	Power Line Route (approximate acres)	Total Acres
Prime Farmland	--	0.77	0.77
Farmland of Statewide Importance	0.32	3.82	4.14
Unique Farmland	5.84	17.48	23.32
Farmland of Local Importance	--	7.48	7.48
Farmland of Local Potential	-	39.41	39.41
Grazing Land	0.02	21.60	21.62
Total	**6.18**	**90.56**	**96.74**

Source: DOC 2015.

Implementation of APM AG-1 (Coordinate with Landowners, Farmers, and Ranchers Regarding Construction and Maintenance Activities) will further reduce already less-than-significant impacts by ensuring coordination with landowners in regards to harvesting and planting seasons.

Power Line Route

Construction of the power line route will require removal and permanent conversion of existing vineyards, dry farming, grazing, and row crops for the placement of lattice steel towers, tubular steel poles, and light-duty steel poles.

Permanently converted areas will be limited to new pole locations, including areas encompassed by individual concrete pier foundations and 10-foot radius maintenance areas around each pole location supporting distribution equipment in grassland areas. These areas will remain permanently cleared of vegetation and vineyards for access and maintenance purposes. In some cases, a farmer may request the project proponents to maintain a 20-foot clearance around structures in vineyards where automatic picking machines are utilized. Such requests will be coordinated on a case by case basis, upon consultation between the farmer and the project proponents. Additional temporary impacts, including vineyard and crop removal, will also occur in temporary work areas around poles, identified staging areas, pull sites, and crossing structure work areas.

Areas of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance mapped through the FMMP are shown in Figure 3.2-1, FMMP Important Farmlands Map, above. The total amount of farmland that will be permanently converted as a result of the project is estimated in Table 3.2-8, Permanent Farmland Conversions. Construction of the power line route will result in the conversion of about 0.67 acre of total farmland, including approximately 0.04 acre of Unique Farmland, approximately 0.06 acre of Farmland of Local Importance, approximately 0.21 acre of Farmland of Local Potential, and approximately 0.30 acre of Grazing Land.

Almost the entire 3-mile reconductoring segment will extend through heavily urbanized areas in Paso Robles that have little potential to support agricultural uses in the future. Other portions of the power line route will extend within disturbed road shoulder areas adjacent to existing roadways, where agricultural uses are unlikely to occur. Approximately 75% of the power line route will be located within new utility easements, where agricultural uses are allowed and will continue to be permitted as long as they do not conflict with rights under the easement. In areas where the power line will cross more intensive agriculture, existing agricultural uses will be preserved and agricultural operations will be permitted to continue beneath the new power line.

The area to be permanently converted as a result of power line construction is minimal in comparison to the vast agricultural operations and vineyards in the project area. Where feasible, the power line has been sited to avoid agricultural resources (i.e., by co-locating with the distribution lines when feasible). In general, the power line route will be compatible with existing agricultural operations and resources along the route. Agricultural areas crossed by the power line route will remain in agricultural production and the project will not expand urban uses that will change the rural agricultural nature of the area. The amount of permanently converted farmland will be less than the 10 acres of Prime Farmland and 40 acres of Farmland of Statewide Importance, Unique Farmland, and non-Prime Williamson Act lands identified as the threshold for sustainable agricultural uses in California Government Code Section 51222.

Construction of the power line route will also result in temporary impacts to additional areas supporting agricultural uses, including preparation and temporary use of pull sites and crossing guard structures, preparation and use of helicopter landing zones, and construction of temporary staging and storage areas. As shown in Table 3.2-9, Temporary Impacts to Farmland, approximately 90.56 acres of farmland will be temporarily affected during construction of the power line route, including areas mapped as Prime Farmland (approximately 0.77 acre), Farmland of Statewide Importance (approximately 3.82 acres), Unique Farmland approximately (17.48 acres), Farmland of Local Importance (approximately 7.48 acres), Farmland of Local Potential (approximately 39.41 acres), and Grazing Land (approximately 21.60 acres). Areas of temporary disturbance will be replanted and/or restored at the conclusion of construction activities. Consequently, no permanent conversion of farmlands will occur in these areas, and impacts related to the conversion of important farmlands as a result of the power line route will be less than significant.

Implementation of APM AG-1 (Coordinate with Landowners, Farmers, and Ranchers Regarding Construction and Maintenance Activities) will further reduce already less-than-significant impacts by ensuring project proponents coordinate with landowners to avoid and minimize impacts to nearby agricultural soils and operations.

Operation and Maintenance

Operation and maintenance of Estrella Substation and the power line route will include routine monthly inspections and regular maintenance activities within the substation site and routine inspection and repair of power line components on an as-needed basis. At the substation, operation and maintenance activities will be limited to areas within the substation fencing, will utilize paved or graveled private access ways constructed as part of the project, and will not require disturbance or conversion of additional farmlands outside of the substation site.

Operation and maintenance of the power line route may require access through active agricultural areas for inspection or to make the necessary repairs. Any agricultural areas temporarily disturbed by operation and maintenance activities will be returned to agricultural uses and no permanent conversion of farmlands will occur. Therefore, impacts associated with conversion of farmlands from operation and maintenance of Estrella Substation and the power line route will be less than significant.

Ag-Forest-b: Conflict with existing zoning for agricultural use, or a Williamson Act contract? *(Less than Significant)*

Construction

Estrella Substation

Estrella Substation will be located within areas designated as Agriculture in the *County of San Luis Obispo General Plan*. Pursuant to the County Land Use Ordinance (Table 2-2), transmission lines and public utility facilities are allowed in all County land use categories. Therefore, construction of the substation will not conflict with existing zoning for agricultural use and no impacts associated with existing zoning for agricultural use will occur.

Estrella Substation will be located within a portion of a 98-acre parcel currently under a Williamson Act contract. Based on a utility exemption to both the Subdivision Map Act and Williamson Act, the approximately 15-acre substation site will be created as a separate legal parcel and removed from the larger 98-acre Williamson Act contract. The existing contract will be modified to reflect the remaining 83-acre contracted area, with the provisions of the original contract continuing to apply in the same manner as before the creation of the separate substation parcel. Further, the remaining 83 acres under the modified contract will continue to be cultivated and will limit land uses to compatible uses as outlined by the County's Rules of Procedure, and the remaining parcel will exceed the 40-acre minimum parcel size specified in the original contract. As a result, construction of Estrella Substation will not conflict with or result in the cancellation of a Williamson Act contract and impacts will be less than significant.

Power Line Route

The power line route will extend through areas designated as Agriculture and Residential Rural (*County of San Luis Obispo General Plan*) and Agriculture, Business Park, Commercial Services, Public Facilities, and Residential (*City of El Paso de Robles General Plan*). Pursuant to the County Land Use Ordinance (Table 2-2) and the City Zoning Ordinance (Table 21.16.200), transmission lines and public utility facilities are allowed in all City and County land use and zoning categories. Therefore, construction of the power line route will not conflict with existing zoning for agricultural use and no impact will occur.

The power line route will extend through Williamson Act contracted lands east of Paso Robles near the substation site and northwest of Paso Robles near the point of connection to the existing 70 kV San Miguel-Paso Robles power line. Land uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" are allowable on any lands under contract (California Government Code Section 51201[e]). Under Government Code Section 51238, electric facilities are determined to be a compatible use. Although construction of the power line will result in temporary disturbances of agricultural areas currently under Williamson Act contracts, disturbances will be temporary and will not affect the contract status on these parcels. Therefore, construction of the power line route will not conflict with existing Williamson Act contracts and no impact will occur.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities will be limited to areas within the substation fencing, will utilize paved or graveled private access ways constructed as part of the project, and will not require disturbance or conversion of agricultural areas outside of the substation site. Additionally, transmission lines and public utility facilities are allowed in all County land use categories and are a compatible use and allowable on any lands subject to a Williamson Act contract. Therefore, operation and maintenance of Estrella Substation will not conflict with existing zoning for agricultural use or Williamson Act contracts and no impact will occur.

Power Line Route

Operation and maintenance of the power line route will primarily include routine inspection and repair of power line components on an as-needed basis. These activities may require temporary access through active agricultural areas for inspection or to make necessary repairs but will have no effect on local zoning or Williamson Act contracts. As a result, operation and maintenance of the power line route will not conflict with existing zoning for agricultural use or Williamson Act contracts and no impact will occur.

Ag-Forest-c: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? *(No Impact)*

There are no forests, forest lands, or timberlands, or zoning for these uses, in the vicinity of the project. Therefore, no impacts related to conflicts with zoning for forest land or timberland will occur.

Ag-Forest-d: Result in the loss of forest land or conversion of forest land to non-forest use? *(No Impact)*

There are no forests, forest lands, or timberlands, or zoning for these uses, in the vicinity of the project. Therefore, no impacts related to the loss or conversion of forest land or timberland will occur.

Ag-Forest-e: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? *(No Impact)*

Construction

Estrella Substation

The limited size of the substation site (approximately 15 acres) and the short-term duration of construction-related activities (approximately 7 months) will minimize the potential for impacts on adjacent agricultural uses.

Construction of the project will temporarily increase water demand for dust control, construction uses, and construction personnel drinking water. The project proponents currently anticipate a total of 10.3 million gallons of water will be needed for project construction. However, this short-term increase in demand will not result in a significant or permanent decrease in water available for agricultural uses on adjacent parcels or for agricultural uses overlying the Paso Robles Groundwater Basin. Refer to Section 3.17, Utilities and Service Systems, for additional information related to water supply. Therefore, no impacts related to the indirect conversion of farmland as a result of construction of Estrella Substation will occur.

Power Line Route

Construction-related disturbance will be limited in duration and nature and is not likely to result in the indirect conversion of additional farmland to non-agricultural use. Therefore, no impacts associated with changes in the environment that could result in the conversion of farmland to non-agricultural uses will occur.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities (i.e., monthly inspections) will be limited in nature and any maintenance and repair activities will be short term in duration. Therefore, no impacts associated with changes in the environment that could result in the conversion of farmland to non-agricultural uses will occur.

Power Line Route

Due to the limited nature of operational and maintenance activities and the short-term duration of repair work, no impacts associated with changes in the environment that could result in the conversion of farmland to non-agricultural uses will occur.

3.2.5 References

California Department of Conservation (DOC). 2012. *San Luis Obispo County 2010–2012 Land Use Conversion Table A-31.* Division of Land Resource Protection, Farmland Mapping and Monitoring Program.

———. 2015. San Luis Obispo County Important Farmland 2012. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Map published May 2015. Scale 1:120,000.

California Department of Food and Agriculture. 2015. *California Agricultural Statistics Review, 2014-2015.*

California Public Utilities Commission. 2013. *PG&E Shepherd Substation Project. Final Initial Study/Mitigated Negative Declaration.* January 2013. SCH# 2012051067

City of El Paso de Robles. 2003a. *City of El Paso de Robles General Plan. . Land Use Element*. As amended through November 18, 2014. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/LandUseElement.pdf. Accessed August 2, 2016..

x______. 2003b. *City of El Paso de Robles General Plan. Open Space Element*. As amended through November 18, 2014. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/OpenSpaceElement.pdf. Accessed August 2, 2016.

———. 2016. *Zoning Ordinance of the City of El Paso de Robles*. Online: https://www.municode.com/library/ca/el_paso_de_robles/codes/code_of_ordinances?nodeId=TIT21ZO_ARTIGERE_CH21.04GEPR_21.04.110TI. Accessed August 2, 2016.

County of San Luis Obispo. 1972. *County of San Luis Obispo Rules of Procedure to Implement the California Land Conservation Act of 1965*. As amended through March 24, 2015. (p 3.2-4). Online: http://www.slocounty.ca.gov/Assets/PL/Forms+and+Information+Library/Land+Use+Permit+Documents/AG+Rules+of+Procedure+to+Implement.pdf. Accessed July 29, 2016.

———. 1998. *County of San Luis Obispo General Plan, Agriculture Element*. As amended through May 2010. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Ag_Element.pdf. Accessed July 29, 2016.

———. 2010. *County of San Luis Obispo General Plan, Conservation and Open Space Element*. May 2010. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed July 29, 2016.

———. 2016. Interactive GIS Mapping Program. Online: http://www.sloplanning.org/PermitViewMap/MapSearch. Accessed July 29, 2016.

County of San Luis Obispo Department of Agriculture/Weights & Measures. 2016. *Weathering the Drought: 2015 Annual Report.* Online: http://www.slocounty.ca.gov/Assets/AG/croprep/2015+Crop+Report/2015_Crop_Report.pdf. Accessed July 29,2016.

Paso Robles Wine Country. 2016. Paso Robles Wine Country Map. Online: http://www.pasowine.com/ava-map/. Accessed July 29, 2016.

U.S. Department of Agriculture, National Agricultural Statistics Service (USDA NASS). 2014. *2012 Census of Agriculture – United States summary and State Data. Volume 1 – Geographic Area Series – Part 51.*

U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). 2016a. *National Soil Survey Handbook, Title 430-VI, Part 622*. March 2016. Online: http://soils.usda.gov/technical/handbook/. Accessed August 2, 2016..

———. 2016b. *Custom Soil Resource Report for San Luis Obispo County, California, Paso Robles Area.* Online: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed July 29,

U.S. Department of Agriculture, Soil Conservation Service. 1983. *Soil Survey of San Luis Obispo County, California, Paso Robles Area.*

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3.3 AIR QUALITY

3.3.1 Introduction

This section describes the existing air quality conditions and potential impacts on air quality as a result of construction, operation, and maintenance of the project. The analysis discusses issues associated with the project construction, and project operation and maintenance, including both regional and site-specific concerns. Air quality emissions will occur within the San Luis Obispo County Air Pollution Control District (SLOAPCD) area of jurisdiction. Emission evaluations follow California Environmental Quality Act (CEQA) guidance provided by SLOAPCD for activities within their jurisdiction. Primary air emissions from the project include construction emissions associated with fugitive dust, heavy construction equipment and helicopter usage, and construction workers commuting to and from the project site.

Air emissions evaluated include reactive organic gases (ROG), oxides of nitrogen (NO_X), particulate matter (PM), and diesel particulate matter (DPM). Greenhouse gas (GHG) emissions are discussed separately in Section 3.7, Greenhouse Gas Emissions. The analysis concludes that impacts will be potentially significant after implementation of Applicant-Proposed Measures (APMs) described in Section 3.3.4.2, Applicant-Proposed Measures.

Emission calculations in this document were based on worst-case estimates of pollutant emissions to ensure presentation of a conservative environmental analysis. This analysis may be revised, as needed, to reflect changes to the project plans. The project's potential effects on air quality were evaluated using the criteria set forth in Appendix G of the CEQA Guidelines. The conclusions are summarized in Table 3.3-1, CEQA Checklist for Air Quality, and discussed in more detail in Section 3.3.4, Applicant-Proposed Measures and Potential Impacts. Air Quality calculations referenced in this section will be submitted separately to California Public Utilities Commission (CPUC) staff.

Table 3.3-1. CEQA Checklist for Air Quality

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

Table 3.3-1. CEQA Checklist for Air Quality

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

3.3.2 Regulatory Background and Methodology

3.3.2.1 Regulatory Background

Federal

Clean Air Act

The federal Clean Air Act (CAA) establishes the statutory framework for regulation of air quality in the United States. Pursuant to this act, the U.S. Environmental Protection Agency (USEPA) has established various regulations to achieve and maintain acceptable air quality, including the adoption of National Ambient Air Quality Standards (NAAQS), mandatory State Implementation Plans (SIPs) or maintenance plan requirements to achieve and maintain NAAQS, and emission standards for both stationary and mobile sources of air pollution. National ambient air quality standards were established in 1970 for six pollutants: carbon monoxide (CO), ozone, particulate matter (PM_{10} and $PM_{2.5}$), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). These pollutants are commonly referred to as criteria pollutants because they are considered the most prevalent air pollutants known to be hazardous to human health.

USEPA designates a region that is meeting the air quality standard for a given pollutant as being in "attainment" for that pollutant; regions not meeting the federal standard are designated as being in "non-attainment" for that pollutant. If a region is designated as non-attainment for a NAAQS, the federal CAA requires the state to develop a SIP to demonstrate how the standard will be attained, including the establishment of specific requirements for review and approval of new or modified stationary sources of air pollution. The CAA Amendments of 1990 directed USEPA to set standards for toxic air contaminants and required facilities to sharply reduce emissions. Table 3.3-2, Ambient Air Quality Standards, summarizes federal and state ambient air quality standards.

State

California Ambient Air Quality Standards

The California Air Resources Board (CARB) is the state agency responsible for California air quality management, including establishment of California Ambient Air Quality Standards (CAAQS), mobile source emission standards, and GHG regulations, as well as oversight of regional air quality districts and preparation of implementation plans, including regulations for stationary sources of air pollution. The CAAQS are generally more stringent, except for the 1-hour NO_2 and SO_2 standards, and include more pollutants than the NAAQS (see Table 3.3-2). California specifies four additional criteria pollutants: visibility reducing particles (VRP), sulfates, hydrogen sulfide (H_2S), and vinyl chloride. Similar to USEPA, CARB designates counties in California as being in attainment or non-attainment for the CAAQS.

Table 3.3-2. Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS [a]	NAAQS [b]	
			Primary [c]	Secondary [d]
Ozone	1 hour 8 hours	0.09 ppm 0.070 ppm	-- 0.070 ppm	-- 0.070 ppm
Carbon monoxide (CO)	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	-- --
Nitrogen dioxide (NO_2)	1 hour Annual Arithmetic Mean	0.18 ppm 0.030 ppm	0.100 ppm [e] 0.053 ppm	-- 0.053 ppm
Sulfur dioxide (SO_2)	1 hour 3 hours 24 hours	0.25 ppm -- 0.040 ppm	0.075 ppm [f] -- --	-- 0.5 ppm --
Particulate matter less than 10 microns in diameter (PM_{10})	24 hours Annual Arithmetic Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 --	150 µg/m^3 --
Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)	24 hours Annual Arithmetic Mean	-- 12 µg/m^3	35 µg/m^3 12 µg/m^3	35 µg/m^3 15 µg/m^3

Table 3.3-2. Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS [a]	NAAQS [b]	
			Primary [c]	Secondary [d]
Lead [g]	30-day Average Rolling 3-month Average	1.5 μg/m^3 --	-- 0.15 μg/m^3	-- 0.15 μg/m^3
Visibility reducing particles (VRP) [g]	8 hours	[h]	--	--
Sulfates	24 hours	25 μg/m^3	--	--
Hydrogen sulfide (H_2S)	1 hour	0.03 ppm	--	--
Vinyl chloride	24 hours	0.01 ppm	--	--

Notes:

ppm = parts per million

μg/m^3 = micrograms per cubic meter

-- = No standard has been adopted for this averaging time

[a] California Ambient Air Quality Standards for ozone, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and VRP), are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] National Ambient Air Quality Standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

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

[d] Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[e] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.100 ppm.

[f] To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.075 ppm.

[g] CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[h] Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%.

Source: 17 CCR 70200.

The Air Toxic "Hot Spots" Information and Assessment Act identifies toxic air contaminant hot spots where emissions from specific sources may expose individuals to an elevated risk of adverse health effects, particularly cancer or reproductive harm. Toxic air contaminants are also referred to as hazardous air pollutants (HAPs). The act requires that a business or other establishment identified as a significant source of toxic emissions provide the affected population with information about health risks posed by the emissions.

Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations

CARB has established the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations to minimize the generation of asbestos from earth disturbance or construction activities. The Asbestos ATCM applies to any project that will include sites to be disturbed in a geographic ultramafic rock unit area or an area where naturally occurring asbestos (NOA), serpentine, or ultramafic rocks are determined to be present.

Additionally, in the event that NOA, serpentine, or ultramafic rock is discovered during earth disturbance activities, the project will also be subject to the Asbestos ATCM. The Asbestos ATCM establishes notification, management practice, mitigation plan, transport and disposal, and administrative (e.g., recordkeeping and reporting) requirements for projects, to reduce the generation of asbestos from all aspects of construction, grading, quarrying, and mining operations. NOA is not expected to be encountered during construction of the project (SLOAPCD 2016).

Regional

San Luis Obispo County Air Pollution Control District

The project is located within the jurisdiction of SLOAPCD, which is the regional agency charged with preparing, adopting, and implementing emission control measures and standards for stationary sources of air pollution pursuant to delegated state and federal authority. The following summary of local plans and guidance documents is provided for informational purposes and to assist with CEQA review.

Under the California Clean Air Act (CCAA), SLOAPCD is required to develop an air quality plan to achieve and/or maintain compliance with federal and state non-attainment criteria pollutants within the air district. The SLOAPCD adopted a Strategic Action Plan (SAP) in January 2004. This plan establishes a 5-year plan to achieve and maintain attainment with the federal and state air quality standards, manage toxic air contaminants to protect public health, increase public awareness and participation in achieving clean air goals, and to ensure the districts resources are used effectively to accomplish the goals. This plan was updated in 2007 and 2012 (SLOAPCD 2012a).

SLOAPCD created the *SLOAPCD CEQA Air Quality Handbook* to assist lead agencies, planning consultants, and project proponents in assessing the potential air quality impacts from industrial, residential, and commercial development (SLOAPCD 2012b). This handbook provides information on SLOAPCD's thresholds for determining the significance of potential air quality impacts from proposed development and provides recommendations on the level of mitigation necessary to reduce those impacts.

As required by the CCAA, SLOAPCD adopted the *2001 Clean Air Plan San Luis Obispo County* (CAP) on March 26, 2002. The CAP outlines SLOAPCD's strategies to reduce ozone precursor emissions from a wide variety of stationary and mobile sources (SLOAPCD 2001). In an effort to reduce public exposure to PM, CARB consulted with local air pollution control districts to develop a list of PM reduction strategies. SLOAPCD adopted the *Particulate Matter Report, Implementation of SB 656 Requirements* in July 2005 (SLOAPCD 2005).

Local

No local (County of San Luis Obispo [County] and City of El Paso de Robles [City]) air quality regulations are applicable to this project.

3.3.2.2 Methodology

As published in the SLOAPCD *CEQA Air Quality Handbook*, significance level thresholds for short-term construction operations have been established for combined ROG and NO_x emissions, DPM, and fugitive dust PM_{10} (particulate matter less than 10 microns in diameter). Significance level thresholds for CO have been defined for daily operational emissions, but not for short-term construction operations. Quantitative thresholds have not been established for SO_2 or $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter) emissions; however, emissions of SO_2 or $PM_{2.5}$ will be minimal.

The first of the air quality significance criteria established by the CEQA Guidelines is if the project will "conflict with or obstruct implementation of the applicable air quality plan" (California Code of Regulations [CCR] Title 14, Appendix G). The project must be consistent with SLOAPCD plans and the San Luis Obispo portion of the California SIP. Impacts of the project can be determined by whether or not the emissions exceed the criteria pollutant threshold levels established by SLOAPCD.

Air quality impacts were analyzed using the California Emissions Estimator Model (CalEEMod) version 2016.3.1. CalEEMod was designed in collaboration with the South Coast Air Quality Management District (SCAQMD) and other California air districts to calculate air and GHG emissions associated with land use projects (ENVIRON International Corporation and the California Air Districts 2016). This program analyzes both construction (short-term) and operational (long-term) emissions by utilizing both default values for specific geographic areas and typical land use projects as well as project-specific values such as construction schedules and equipment rosters. The CalEEMod report referenced in this section is provided in Appendix J.

3.3.3 Environmental Setting

3.3.3.1 Regional Setting

The climate of San Luis Obispo County is moderate and is frequently classified as a Mediterranean climate with a strong maritime influence and warm, dry summers. A semi-permanent high-pressure area over the North Pacific Ocean moves northward in summer, holding storm tracks to the north. As a result, California receives little or no precipitation from this source during that period. In winter, the Pacific high weakens and moves southward, permitting Pacific cold fronts to move southeastward across the San Luis Obispo area at irregular intervals. From December through March, the area commonly experiences strong winds, locally heavy rains, and winter storm manifestations bringing the majority of the annual rainfall (National Oceanic and Atmospheric Administration [NOAA] 1994).

In the project area, the average temperatures in January range from 34 degrees Fahrenheit (°F) at night to 60°F during the day. The warmest month is July, when high temperatures average 94°F.

The annual rainfall is approximately 13 inches (Western Regional Climate Center [WRCC] 2016a).

Representative meteorological conditions, including monthly and annual averages of maximum temperature, minimum temperature, total precipitation, and total snowfall in the project area are presented in Table 3.3-3, Representative Meteorological Conditions in the Project Area.

Table 3.3-3. Representative Meteorological Conditions in the Project Area

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (°F)	59.6	62.8	66.3	72.7	80.3	87.7	93.8	93.5	89.1	79.9	67.8	59.9	76.1
Average Min. Temperature (°F)	34.2	37.2	38.9	40.8	45.5	50.1	53.7	53.2	50.4	44.3	37.6	33.3	43.3
Average Total Precipitation (in.)	2.73	2.46	2.17	0.91	0.26	0.02	0.02	0.04	0.21	0.52	1.19	2.01	12.53
Average Total Snowfall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Note: Historical weather data for Paso Robles Muni AP, California, National Weather Service (NWS) Co-op Station 046742 (approximately 3 miles [4.75 km] south of the project site) from 07/1/1948 to 06/09/2016. Annual averages are presented for minimum and maximum temperatures and annual totals for precipitation and snowfall.

°F = degrees Fahrenheit, Max. = maximum, Min. = minimum

Source: WRCC 2016a.

During the period from January 1, 2003, to July 1, 2016, the prevailing winds in the project area most frequently blew from the southwest (approximately 13% of the time when also including wind blowing from the south-southwest and west-southwest). This data was taken from the nearest National Weather Service (NWS) Co-op wind speed monitor (Las Tablas, California), approximately 16 miles northwest from the project site. The majority of the time, winds were calm (less than 1 mile per hour [mph]). The average wind speed for the period was approximately 2 mph (WRCC 2016b).

3.3.3.2 Ambient Air Quality

SLOAPCD operates a network of ambient air quality monitoring stations that measure the concentrations of many of the regulated criteria pollutants.

A representative background concentration monitor, the Paso Robles-Santa Fe Monitoring Station, is located approximately 0.5 mile west of the reconductoring segment. Due to its proximity to the project, the data from the Paso Robles-Santa Fe Monitoring Station, located at 235 Santa Fe Avenue, Paso Robles, California, 93447, was used for the following criteria pollutants: ozone and PM_{10}. The Paso Robles-Santa Fe Monitoring Station does not monitor for the other criteria pollutants, so the next closest monitoring station, the Atascadero-Lewis Avenue Monitoring Station, located at 6005 Lewis Avenue, Atascadero, California, 93422 (about 10 miles south of the project area), was used for NO_2 and $PM_{2.5}$.

The next closest monitor to the project, the Unocal-Nipomo Monitoring Station, located at 1300 Guadalupe Road, Nipomo, California, 93444 (approximately 43 miles south of the project area), was used for SO_2 ambient concentration data. Ambient concentration data for CO was collected from the Santa Maria Monitoring Station, located at 906 South Broadway, Santa Maria, California, 93456 (about 49 miles south of the project area).

Lastly, the closest monitoring station that monitors ambient concentrations of lead is the Fresno-Garland Monitoring Station, about 93 miles northeast of the project area at 3727 North First Street, Fresno, California, 93726. Data collected at these monitoring stations is assumed representative of the air quality experienced on-site during recent years; refer to Table 3.3-4, Local Air Quality Levels.

Table 3.3-4. Local Air Quality Levels

Pollutant	Standard		Year	Maximum Concentration	Number of Days State/Federal Std. Exceeded
	California	Federal Primary			
1-Hour Ozone [1]	0.09 ppm	N/A	2013	0.067	0/N/A
			2014	0.065	0/N/A
			2015	0.068	0/N/A
8-Hour Ozone [1]	0.070 ppm	0.070 ppm	2013	0.072	0/0
			2014	0.070	0/0
			2015	0.073	0/0
1-Hour Carbon Monoxide (CO) [3]	20 ppm	35 ppm	2013	2.592	0/0
			2014	2.775	0/0
			2015	2.933	0/0
8-Hour Carbon Monoxide (CO) [3]	9.0 ppm	9.0 ppm	2013	0.9	0/0
			2014	1	0/0
			2015	1.2	0/0
1-Hour Nitrogen Dioxide (NO_2) [2]	180 ppb	100 ppb	2013	42.0	0/0
			2014	60.0	0/0
			2015	31.0	0/0
Annual Arithmetic Mean Nitrogen Dioxide (NO_2) [2]	0.030 ppm	0.053 ppm	2013	.007	0/0
			2014	.006	0/0
			2015	Insufficient Data	--

Table 3.3-4. Local Air Quality Levels

Pollutant	Standard		Year	Maximum Concentration	Number of Days State/Federal Std. Exceeded
	California	Federal Primary			
24-Hour Fine Particulate Matter ($PM_{2.5}$) [2]	No Separate Standard	35 μg/m^3	2013	33.0	N/A/0
			2014	37.3	N/A/2
			2015	29.1	N/A/0
Annual Arithmetic Mean Fine Particulate Matter ($PM_{2.5}$) [2]	12 μg/m^3	12 μg/m^3	2013	7.7	0/0
			2014	6.0	0/0
			2015	Insufficient Data	--
24-Hour Particulate Matter (PM_{10}) [1]	50 μg/m^3	150 μg/m^3	2013	89.0	0/0
			2014	82.5	13/0
			2015	35.2	18/0
Annual Arithmetic Mean Particulate Matter (PM_{10}) [1]	20 μg/m^3	N/A	2013	23.6	1/N/A
			2014	20.0	0/N/A
			2015	17.2	0/N/A
24-Hour Lead (Pb) [5]	1.5 μg/m^3	0.15 μg/m^3	2013	0.012	0/0
			2014	0.015	00
			2015	0.014	0/0
1-Hour Sulfur Dioxide (SO_2) [4]	250 ppb	75 ppb	2013	146	0/0
			2014	9	0/0
			2015	4	0/0
24-Hour Sulfur Dioxide (SO_2) [4]	40 ppb	N/A	2013	31	0/N/A
			2014	1.6	0/N/A
			2015	2	0/N/A

Notes:

[1] Data from Paso Robles Santa Fe Avenue Monitor in Paso Robles, CA for the years 2013-2015.

[2] Data from Atascadero-Lewis Avenue monitor in Atascadero, CA for the years 2013-2015.

[3] Data from Santa Maria-906 S. Broadway monitor in Santa Maria, CA for the years 2013-2015.

[4] Data from Unocal monitor in Nipomo, CA for the years 2013-2015.

[5] Data from Fresno-Garland monitor in Fresno, CA for the years 2013-2015.

μg/m^3 = micrograms per cubic meter, ppm = parts per million, ppb = parts per billion

Source: USEPA 2016; CARB 2016b.

Violations of the CAAQS for PM_{10} have occurred historically in the project area. Table 3.3-5, Federal and State Attainment Status, below, shows the attainment status of the project area in regards to federal and state air quality standards.

Table 3.3-5. Federal and State Attainment Status

Pollutant	Federal Designation	State Designation
Ozone (8-Hour -- 2008)	Attainment	Non-attainment
CO	Attainment	Attainment
PM_{10}	Unclassified*	Non-attainment
$PM_{2.5}$	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Unclassified*	Attainment
Lead	Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Attainment
Visibility-Reducing Particles	(No Federal Standard)	Unclassified*

* At the time of designation, if the available data does not support a designation of attainment or non-attainment, the area is designated as unclassifiable.

Source: CARB 2016a.

3.3.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for air quality impacts derived from Appendix G of the CEQA Guidelines, provide APMs, and assess potential project-related construction and operational impacts.

3.3.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project-related impacts on air quality were evaluated for each of the criteria listed in Table 3.3-1, as discussed in Section 3.3.4.3, Potential Impacts.

A project's air quality impact is considered significant if the project generates construction or operational emissions that exceed the thresholds of significance found in the SLOAPCD *CEQA Air Quality Handbook*. These significance thresholds are listed in Table 3.3-6, SLOAPCD Thresholds of Significance.

Table 3.3-6. SLOAPCD Thresholds of Significance

Pollutant	Construction Activity Threshold		Operations Threshold
	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)	Annual (tons)
ROG + NO_x (combined)	2.5	6.3 tons	25
Diesel Particulate Matter (DPM)	0.13	0.32 tons	N/A
Fugitive Particulate Matter (PM_{10}), Dust	2.5	N/A	25
CO	N/A	N/A	N/A

Source: SLOAPCD 2012b.

3.3.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs:

Table 3.3-7. Applicant Proposed Measures for Air Quality

APM No.	Description
AIR QUALITY	
APM AIR-1	**Minimize ROG, NO_X, and PM Combustion.** • Maintain all construction equipment in proper tune according to manufacturer's specifications; • Fuel all off-road and portable diesel powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); • Use on-road heavy-duty trucks that meet CARB's 2010 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the state On-Road Regulation; • Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g., captive or NOx exempt area fleets) may be eligible by proving alternative compliance; • All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated staging areas and substation site to remind drivers and operators of the 5-minute idling limit; • Electrify equipment when feasible; • Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and, • Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.

Table 3.3-7. Applicant Proposed Measures for Air Quality

APM No.	Description
APM AIR-2	**Air Quality Best Available Control Technology for Construction Equipment.** Best Available Control Technology (BACT) measures for the project include: • Reduce emissions by expanding use of Tier 3 off-road and 2010 on-road compliant engines; • Installing California Verified Diesel Emission Control Strategies.
APM AIR-3	**Minimize Fugitive Dust.** • Reduce the amount of the disturbed area where possible; • Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. • All dirt stock pile areas should be sprayed daily as needed; • All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by SLOAPCD; • Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface; • All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114; and, • Sweep streets at the end of each day if visible soil material extending over 50 feet is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where possible.

3.3.4.3 Potential Impacts

Project impacts on air quality were evaluated against the CEQA significance criteria, as discussed previously in Section 3.3.4.1, Significance Criteria. This section evaluates potential project impacts from both the construction phase and ongoing operation and maintenance of the project. Construction details incorporated into the impact analysis are briefly discussed below.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, construction and operation of approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line. Estrella Substation is located within an unincorporated area of San Luis Obispo County. The 70 kV power line route is located in San Luis Obispo County and Paso Robles.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The estimated impacts of this future project are briefly discussed below where the analysis would differ from that of the project.

Air Quality-a: Conflict with or obstruct implementation of the applicable air quality plan? (No Impact)

SLOAPCD is responsible for implementing and regulating stationary and area sources of air emissions in the county. SLOAPCD's CEQA Air Quality Handbook, SAP, and CAP were reviewed to determine whether the project will conflict with applicable air quality plans. These SLOAPCD plans present strategies and control measures needed to continue the improvement of air quality in the county.

Construction of the project will result in short-term air emissions during the 7-month construction period. APMs will be implemented to ensure that emissions during construction stay below the SLOAPCD thresholds of significance. Therefore, project construction will be compatible with applicable air quality plans, and short-term construction-related emissions will not impact SLOAPCD's implementation of its adopted air quality plans.

The project will be operated using a Supervisory Control and Data Acquisition (SCADA) system. Therefore, no additional operating and maintenance staff will be required after construction is completed. Existing operations and maintenance crews will operate and maintain the substation and power line equipment as part of their current operations and maintenance activities. Neither of these activities will differ materially from baseline conditions. Consequently, operation of the project will not result in an incremental increase in operations and maintenance emissions (except for minor SF_6 emissions discussed in Chapter 3.7, Greenhouse Gas Emissions) and will not conflict with adopted air quality plans. Therefore, no impacts will occur.

Air Quality-b: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Less than Significant)

Construction

Construction of the project is expected to occur for approximately 7 months, with the project being completed and in-service by spring 2019. According to the SLOAPCD's CEQA Air Quality Handbook, daily emission thresholds only apply to projects expected to be completed within 90 days. For projects lasting more than 90 days, SLOAPCD's quarterly thresholds apply. As such, only the quarterly thresholds are discussed and evaluated in this section.

Heavy hauling trucks will be used to deliver materials and equipment to work sites from the main staging areas located at the Estrella Substation site and another staging area located within Paso Robles. For the purposes of conducting the air quality analysis, it is assumed that the supply sources will be located on average approximately 13 miles away from the individual work sites. Concrete trucks will be used intermittently for about 12 weeks during construction, commuting approximately 14 miles per round-trip. An estimated maximum number of 25 daily construction workers are each assumed to commute an average distance of 20 miles daily round-trip.

Construction activities were modeled using CalEEMod, and were based on a 10-hour workday, 6-day workweek. Emissions from construction of the project will be temporary; sources of construction-related emissions include construction equipment engine exhaust, emissions from worker vehicle commuting trips, materials delivery, and fugitive dust from earthmoving activities. Unmitigated (before implementation of APMs) exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. These defaults use a statewide fleet mix from CARB's off-road inventory model per year and horsepower range. Mitigated (after implementation of APMs) exhaust emission factors for diesel-powered heavy equipment are based on tiered engine standards to qualify for a particular tier (Carl Moyer standards). Variables factored into estimating the total construction emissions include:

- amount of land cleared for the project;
- duration of construction periods;
- quantities and types of equipment used;
- site characteristics;
- weather conditions;
- number of workers and their commute distance; and,
- number and length of material delivery trips.

Total construction emissions for both Estrella Substation and the 70 kV power line route are presented in Table 3.3-8, Total Estimated Construction-Related Emissions for the Estrella Substation and Paso Robles Area Reinforcement Project.

Table 3.3-8. Total Estimated Construction-Related Emissions for Estrella Substation and Paso Robles Area Reinforcement Project

Emissions Source	Pollutant		
	ROG + NO_x	**DPM**	**PM_{10}**
Unmitigated[1] Emissions – Tons per Quarter [3]	3.74	0.12	0.14
Mitigated[2] Emissions – Tons per Quarter [3]	2.48	0.08	0.08
SLOAPCD Quarterly Tier 1 Significance Thresholds (Tons)	*2.5*	*0.13*	*2.5*
SLOAPCD Quarterly Tier 2 Significance Thresholds (Tons)	*6.3*	*0.32*	*N/A*
Is Quarterly Tier 1 or 2 Threshold Exceeded?	**No**	**No**	**No**

Note: Emissions were calculated using CalEEMod version 2016.3.1 and are presented for maximum emitting day per pollutant. The reductions for construction emission mitigations are based on mitigation included in the CalEEMod computer model. Air Quality calculations referenced in this section are provided in Appendix J.

[1] Unmitigated emissions are the estimated construction emissions prior to the implementation of any APMs.

[2] Mitigated emissions are the estimated construction emissions after implementing APMs AIR-1 and AIR-3.

[3] To calculate quarterly emissions, calendar year annual emissions are divided by the number of quarters during which construction occurs that calendar year. If quarterly emissions are calculated for multiple different calendar years, the maximum quarterly emission rate is used. For example, if a project is constructed for 3 months in 2015 and 5 months in 2016, the 2015 annual construction emissions are divided by 1 and the 2016 annual construction emissions are divided by 2. The 2015 and 2016 calculated quarterly emission rates are compared and the maximum quarterly emission rate is used.

While this analysis presents air quality emissions for the project as a whole, construction emissions for the two distinct project components (substation and power line route) were also analyzed to provide insight into each component's effect on air quality emissions along the approximately 10-mile project corridor. These calculated emissions are shown in Table 3.3-9, Estrella Substation Construction-Related Emissions, and Table 3.3-11, Power Line Route Construction-Related Emissions.

The project will not permanently increase emissions from mobile sources through the generation of a significant number of new vehicle trips. However, project construction will increase traffic and other mobile source activity (off-road construction equipment) during the approximately 7-month construction period. Additionally, project construction will result in short-term emissions that will be subject to SLOAPCD requirements for dust control and emissions managed by statewide programs for off-road mobile sources and portable equipment.

Because construction of the project will result in short-term emissions that will exceed SLOAPCD thresholds, standard mitigation measures as defined by SLOAPCD will be required. Implementation of APM AIR-1 (Minimize ROG, NO_X, and PM Combustion), APM AIR-2 (Best Available Control Technology (BACT) for construction equipment), and APM AIR-3 (Minimize Fugitive Dust) will ensure that overall air quality impacts related to construction of the project will not exceed the quarterly thresholds established by SLOAPCD. As a result, impacts related to violation of air quality standards from construction will be less than significant.

Estrella Substation

Table 3.3-9, Estrella Substation Construction-Related Emissions, shows a summary of quarterly construction emissions related to construction of Estrella Substation. As demonstrated in this table, with implementation of APMs AIR-1 though AIR-3, all construction related emissions associated with construction of the substation site will be under the SLOAPCD's quarterly thresholds. As a result, impacts related to violation of air quality standards from construction of the substation will be less than significant.

Table 3.3-9. Estrella Substation Construction-Related Emissions

Emissions Source	Pollutant		
	ROG + NO_x	DPM	PM_{10}
Unmitigated[1] Emissions – Tons per Quarter[3]	2.47	0.08	0.11
Mitigated[2] Emissions – Tons per Quarter[3]	1.67	0.05	0.06
SLOAPCD Quarterly Tier 1 Significance Thresholds[4] (Tons)	*2.5*	*0.13*	*2.5*
SLOAPCD Quarterly Tier 2 Significance Thresholds[4] (Tons)	*6.3*	*0.32*	*N/A*
Is Quarterly Tier 1 or 2 Threshold Exceeded?	**No**	**No**	**No**

Note: Emissions were calculated using CalEEMod version 2016.3.1 and are presented for maximum emitting day per pollutant. The reductions for construction emission mitigations are based on mitigation included in the CalEEMod computer model. Air Quality calculations referenced in this section are provided in Appendix J.

[1] Unmitigated emissions are the estimated construction emissions prior to the implementation of any APMs.

Table 3.3-9. Estrella Substation Construction-Related Emissions

Emissions Source	Pollutant		
	ROG + NO_x	DPM	PM_{10}

[2] Mitigated emissions are the estimated construction emissions after implementing APMs AIR-1 and AIR-3.

[3] To calculate quarterly emissions, calendar year annual emissions are divided by the number of quarters during which construction occurs that calendar year. If quarterly emissions are calculated for multiple different calendar years, the maximum quarterly emission rate is used. For example, if a project is constructed for 3 months in 2015 and 5 months in 2016, the 2015 annual construction emissions are divided by 1 and the 2016 annual construction emissions are divided by 2. The 2015 and 2016 calculated quarterly emission rates are compared and the maximum quarterly emission rate is used.

[4] Quarterly Tier 1 and Tier 2 Thresholds apply to construction projects lasting more than one quarter of the year (3 months). As stated in Chapter 2.0, Project Description, the project is estimated to be constructed in 7 months.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Emissions for future construction of a 70/21 kV transformer and distribution facilities were analyzed to provide an estimate of this future work's effect on air quality emissions in the area surrounding Estrella Substation during the approximately 4 month construction period. Similar to construction of Estrella Substation, construction activities associated with construction of distribution facilities were modeled using CalEEMod, and were based on a 10-hour workday, 6-day workweek. Calculated emissions for this future work are shown in Table 3.3-10, Future 70 kV Distribution Construction-Related Emissions. Construction of the future transformer and distribution facilities will not result in short-term emissions that exceed SLOAPCD thresholds. Therefore, impacts related to violation of air quality standards from construction will be less than significant.

Table 3.3-10. Future 70 kV Distribution Construction-Related Emissions

Emissions Source	Pollutant		
	ROG + NO_x	DPM	PM_{10}
Unmitigated Emissions – Tons per Quarter[1]	**0.07**	**0.00179**	**0.01**
SLOAPCD Quarterly Tier 1 Significance Thresholds[2] (Tons)	*2.5*	*0.13*	*2.5*
SLOAPCD Quarterly Tier 2 Significance Thresholds[2] (Tons)	*6.3*	*0.32*	*N/A*
Is Quarterly Tier 1 or 2 Threshold Exceeded?	**No**	**No**	**No**

Note: Emissions were calculated using CalEEMod version 2013.2.2 and are presented for maximum emitting day per pollutant. The reductions for construction emission mitigations are based on mitigation included in the CalEEMod computer model. Air Quality calculations referenced in this section are provided in Appendix J.

[1] To calculate quarterly emissions, the 2027 calendar year annual emissions are divided by the number of quarters during which construction occurs that calendar year. The project is constructed for approximately 4 months—approximately 2 quarters. Thus, the annual emissions are divided by 2.

[2] Quarterly Tier 1 and Tier 2 Thresholds apply to construction projects lasting more than one quarter of the year (3 months). As stated in Chapter 2.0, Project Description, the project is estimated to be constructed in approximately 4 months.

Power Line Route

Table 3.3-11, Power Line Route Construction-Related Emissions, provides a summary of quarterly construction emissions related to construction of the power line route. As demonstrated in this table, with implementation of APMs AIR-1 though AIR-3, all construction-related emissions associated with construction of the power line route will be under the SLOAPCD thresholds for quarterly emissions. As a result, impacts related to violation of air quality standards from construction of the power line route will be less than significant.

Table 3.3-11. Power Line Route Construction-Related Emissions

Emissions Source	Pollutant		
	ROG + NO_x	**DPM**	**PM_{10}**
Unmitigated[1] Emissions – Tons per Quarter[3]	1.89	0.06	0.03
Mitigated[2] Emissions – Tons per Quarter[3]	1.39	0.05	0.02
SLOAPCD Quarterly Tier 1 Significance Thresholds[4] (Tons)	*2.5*	*0.13*	*2.5*
SLOAPCD Quarterly Tier 2 Significance Thresholds[4] (Tons)	*6.3*	*0.32*	*N/A*
Is Quarterly Tier 1 or 2 Threshold Exceeded?	**No**	**No**	**No**

Note: Emissions were calculated using CalEEMod version 2016.3.1 and are presented for maximum emitting day per pollutant. The reductions for construction emission mitigations are based on mitigation included in the CalEEMod computer model. Air Quality calculations referenced in this section are provided in Appendix J.

[1] Unmitigated emissions are the estimated construction emissions prior to the implementation of any APMs.

[2] Mitigated emissions are the estimated construction emissions after implementing APMs AIR-1 and AIR-3.

[3] To calculate quarterly emissions, calendar year annual emissions are divided by the number of quarters during which construction occurs that calendar year. If quarterly emissions are calculated for multiple different calendar years, the maximum quarterly emission rate is used. For example, if a project is constructed for 3 months in 2015 and 5 months in 2016, the 2015 annual construction emissions are divided by 1 and the 2016 annual construction emissions are divided by 2. The 2015 and 2016 calculated quarterly emission rates are compared and the maximum quarterly emission rate is used.

[4] Quarterly Tier 1 and Tier 2 Thresholds apply to construction projects lasting more than one quarter of the year (3 months). As stated in Chapter 2.0, Project Description, the project is estimated to be constructed in 7 months.

Operation and Maintenance

The minimal emissions from operation and maintenance of Estrella Substation and the power line route include the monthly site visits, consisting of one truck per month to each substation, and the potential use of a helicopter annually to inspect the power line route as part of routine inspection. Neither of these activities will differ materially from baseline conditions. As shown in Table 3.3-12, Total Estimated Operation- and Maintenance-Related Emissions for the Estrella Substation and Paso Robles Area Reinforcement Project, operation and maintenance of Estrella Substation and the power line route will not exceed any SLOAPCD significance thresholds.

Table 3.3-12. Total Estimated Operation- and Maintenance-Related Emissions for the Estrella Substation and Paso Robles Area Reinforcement Project

Emissions Source	Pollutant			
	ROG + NO_x	**DPM**	**PM_{10}**	**CO**
Unmitigated[1] Emissions – Tons per Year	0.07	0.00	0.00	0.15
SLOAPCD Annual Significance Thresholds (Tons)	*25*	*N/A*	*25*	*N/A*
Is Annual Threshold Exceeded?	**No**	**N/A**	**No**	**N/A**

Note: Emissions were calculated using CalEEMod version 2016.3.1 and are presented for maximum emitting day per pollutant. The reductions for construction emission mitigations are based on mitigation included in the CalEEMod computer model. Air Quality calculations referenced in this section are provided in Appendix J.

[1] Unmitigated emissions are the estimated emissions prior to the implementation of any APMs.

Emissions from operation and maintenance of Estrella Substation and the power line route will be below the SLOAPCD significance thresholds and, thus, will not conflict with or obstruct implementation of any applicable air quality plans. Therefore, impacts related to violation of air quality standards from operations and maintenance will be less than significant.

Although the project area is a non-attainment area for ozone and PM_{10} according to the CAAQS, the project will not violate any air quality standard nor contribute substantially to an existing or projected violation. Impacts associated with operation and maintenance will be less than significant. With implementation of APM AIR-3 (Minimize Fugitive Dust), impacts from ozone and PM_{10} will remain less than significant.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Emissions for future operation of Estrella Substation with distribution were analyzed to provide an estimate of this equipment's effect on air quality emissions in the area surrounding Estrella Substation. The addition of the 70 kV transformer and distribution facilities would have no measureable effect on operations- and maintenance-related emissions at Estrella Substation. Therefore, emissions shown in Table 3.3-13, Total Estimated Operation- and Maintenance-Related Emissions for the Estrella Substation and Paso Robles Area Reinforcement Project, would remain unchanged with the addition of future distribution facilities and no impact will occur.

Estrella Substation

Both the 230 kV and 70 kV substations will be remotely operated and monitored using substation monitoring, control, and data acquisition architecture (SCADA) and will not result in significant regular vehicle travel or emissions. The largest source of operational emissions during operation and maintenance of Estrella Substation will be the minimal emissions from occasional vehicle travel associated with one maintenance truck, once a month for each of the two substations, for a total of two vehicle trips per month. Operation and maintenance of Estrella Substation will not conflict with or obstruct implementation of applicable air quality plans because the limited vehicle emissions will be within the projections of the local air quality plans. Therefore, impacts related to operation and maintenance of Estrella Substation will be less than significant.

Power Line Route

As described in Chapter 2, Project Description, inspections of the power line route will be performed annually by existing PG&E routine patrols, either from the ground or by helicopter. Additionally, a detailed inspection of the power lines route will be performed by existing staff every 2 years for wood structures, and every 5 years for lines constructed on steel structures.

To be conservative, it has been assumed that inspections will occur by helicopter because a helicopter will be the higher emissions-generating equipment. Operation and maintenance of the power line route does not involve new development. The power line will increase reliability of electric transmission when the planned and approved development occurs in the area. Using a helicopter once per year will not result in emissions above SLOAPCD's significance thresholds. Therefore, impacts related to operation and maintenance of the power line route will be less than significant.

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

Construction

The project area is currently designated as in attainment or unclassified for all pollutants according to the NAAQS and is a non-attainment area for ozone and PM_{10} according to the CAAQS. Because construction of the project will result in short-term emissions that will exceed SLOAPCD thresholds for ROG + $NO_{x,}$ which are ozone precursors, both standard mitigation measures and Best Available Control Technology as defined by SLOAPCD will be required. Implementation of APM AIR-1 (Minimize ROG, NO_X, and PM Combustion) and APM AIR-3 (Minimize Fugitive Dust) will ensure that air quality impacts related to construction of the project will not exceed quarterly thresholds established by SLOAPCD. With implementation of the above APMs, impacts related to a cumulatively considerable net increase of any criteria pollutants during construction will be less than significant.

Operation and Maintenance

The project area is a non-attainment area for ozone and PM_{10} according to the CAAQS. The minimal emissions for Estrella Substation include emissions from two maintenance vehicles inspecting each substation once per month. These activities will not differ materially from baseline conditions. Emissions of ozone and PM_{10} due to operation and maintenance of Estrella Substation will be below the significance thresholds and will not contribute to a cumulatively considerable net increase in emissions of pollutants for which the project area is in nonattainment. The occasional use of a helicopter for air inspection of the power line route (typically every other year) will not contribute to a cumulatively considerable impact to ozone and PM_{10} emissions.

As shown in Table 3.3-12, Total Estimated Operation- and Maintenance-Related Emissions for the Estrella Substation and Paso Robles Area Reinforcement Project, the operation and maintenance of Estrella Substation and the power line will not exceed any SLOAPCD significance thresholds. Construction of the project will not result in a cumulatively considerable net increase of ozone or PM_{10}. As a result, impacts related to operation and maintenance will be less than significant.

Air Quality-d: Expose sensitive receptors to substantial pollutant concentrations? (Less than Significant)

According to the CARB *Air Quality and Land Use Handbook: A Community Health Perspective*, "sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and school yards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses)."

San Joaquin Valley Fever (Valley fever; formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides immitis*. Research suggests reported cases of Valley fever represent approximately 10% of the total number. In 2012, over 17,000 cases were reported in the U.S., of which 70% were from Arizona and almost 30% from California. The areas in California where Valley fever is considered highly endemic include the Central Valley region and the coastal counties of Monterey and San Luis Obispo. People can become infected with Valley fever by inhaling microscopic spores of the fungus Coccidioides that live in the soil. Exposure occurs after fungal spores become airborne and are inhaled because of either windy conditions or soil disruption. Anyone who lives, works, or visits an area with Valley fever can be infected. Valley fever is not contagious and cannot be spread from one person or animal to another (County of San Luis Obispo Public Health Department 2015).

The California Department of Industrial Relations (Cal/OSHA) requires that employers develop and implement a respiratory protection program in accordance with Cal/OSHA's Respiratory Protection standard (8 CCR 5144). When exposure to dust is unavoidable, employers must provide to their workers National Institute for Occupational Safety and Health (NIOSH)-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or HEPA (high-efficiency particulate air) (Cal/OSHA 2017).

Construction

Estrella Substation

Sensitive receptors have been identified within a 1-mile radius of the site, with the nearest residence located within 265 feet of the substation site. Because construction of the project will result in short-term air emissions during the 7-month construction period, the project proponents will implement APMs to ensure that emissions during construction remain below the SLOAPCD thresholds of significance. With implementation of APM AIR-1 (Minimize ROG, NO_X, and PM Combustion) and APM AIR-3 (Minimize Fugitive Dust), Estrella Substation will have mitigated emissions below quarterly significance thresholds. Therefore, with implementation of these

APMs, impacts to sensitive receptors and construction workers from substantial pollutant concentrations will be less than significant.

The fungal agent that causes Valley fever, Coccidioides (cocci) spores, is spread in the environment through dust that contains spores of the fungus. These spores are small enough to be inhaled deep into the lung, where they can cause infection (Valley fever). According to the California Department of Public Health, construction workers have been found to be at an increased risk of Valley fever compared to agricultural and other workers. In particular, pipeline, highway, and utility construction often involves work in remote areas where the soil has not been disturbed and where pockets of cocci may exist. When these pockets are disturbed, the dust raised can have a high concentration of cocci spores. While, these pockets cannot be reliably predicted, preventive measures, notably dust control, can be effective in reducing the rate of infection and the seriousness of epidemics.

Construction of Estrella Substation is not expected to result in significant Valley fever-related impacts because activities associated with construction of the substation will occur in an area where soils have been regularly disturbed by agricultural activities, which reduces the risk of encountering previously undisturbed pockets of cocci. Additionally, construction activities at the substation will be similar to other localized ground-disturbing activities that occur continually within the county. Further, employers in California are required to provide their workers NIOSH-approved respiratory protection when working in dust-prone areas. As a result, impacts associated with Valley fever on sensitive receptors and construction workers will be less than significant. Implementation of APM AIR-3 (Minimize Fugitive Dust), will further reduce this already less-than-significant impact.

Power Line Route

Due to the linear nature of the power line route, construction activities will be spread across the approximately 7-mile-long 70 kV power line segment, lasting only a few days at each pole location. As a result, impacts related to sensitive receptors from construction of the power line route will be less than significant.

Due to the proximity of sensitive receptors along the reconductoring segment, sensitive receptors in the vicinity will be exposed to increases in criteria air pollutants from construction due to fugitive dust and increased equipment use in the project area. As described for the new power line segment, construction activities associated with the reconductoring segment will last only a few days at each pole location.

Residences located near the helicopter landing zones may experience increased dust during helicopter take-off and landing activities. However, helicopter activities will be limited (where access or local terrain conditions prohibit the work from being conducted by ground-based crews and equipment, or during conductor installation and removal activities), and will occur for about 132 days during the 7-month construction period. In areas of the power line route where landing zones have been established, there are several landing zones that are within approximately 50 feet of a residential boundary. While helicopter landings and take offs will generate dust, landings will be brief (approximately 5 minutes or less on the ground with rotors in motion) and dust effects will be localized. As a result, impacts to sensitive receptors from substantial pollutant concentrations will be less than significant.

Implementation of APM AIR-1 (Minimize ROG, NO_X, and PM Combustion) and APM AIR-3 (Minimize Fugitive Dust), which includes controlling fugitive dust and reducing idling time, will further reduce exposure to sensitive receptors located near work areas. Further, APM AIR-3 will help control and minimize fugitive dust in the area through watering and/or the use of soil stabilizers. Implementation of these APMs will further reduce already less-than-significant impacts.

Construction of the power line route is not expected to result in significant Valley fever-related impacts because activities associated with power line construction will occur mostly in areas where soils have been regularly disturbed by agricultural activities and urban development. Work in areas of previously disturbed soils reduces the risk of encountering previously undisturbed pockets of cocci. Additionally, construction activities along the power line route will be similar to other localized ground-disturbing activities that occur continually within the county. Further, employers in California are required to provide their workers NIOSH-approved respiratory protection when working in dust-prone areas. As a result, impacts associated with Valley fever on sensitive receptors will be less than significant. Implementation of APM AIR-3 (Minimize Fugitive Dust), will further reduce already less-than-significant impacts.

Operation and Maintenance

Sensitive receptors have been identified within a 1-mile radius of the site; however, impacts will be less than significant as emissions from operation and maintenance of the project will not exceed any SLOAPCD thresholds.

Air Quality-e: Create objectionable odors affecting a substantial number of people? (Less than Significant)

Construction

Estrella Substation

Construction of Estrella Substation may generate odors from the construction equipment exhaust. Any odors from construction will be periodic and temporary in nature since construction equipment will not be located in any one area for longer than 7 months. The potential for odors affecting a "substantial number of people" is further limited by the relatively low population density of the substation area. Therefore, impacts related to odors during construction will be less than significant.

Power Line Route

Construction of the new 70 kV power line and reconductoring segments may generate odors from the construction equipment exhaust. Any odors from construction will be periodic and temporary in nature since construction equipment will be transient, with work at each location lasting only a few days. Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions. However, no significant sources of these pollutants will be used during construction. An additional potential source of project-related odor is diesel engine emissions and, as previously described, residences are located near work areas along the route. However, few sources of odor will exist and construction will be short term, lasting a few days at each pole location. Therefore, impacts related to odors during construction will be less than significant.

Operation and Maintenance

Operation and maintenance activities for Estrella Substation and the 70 kV power line route will not cause detectable odors. Vehicles used for occasional maintenance may generate exhaust odors in the immediate vicinity, but this will be temporary and will not affect a "substantial number of people." Therefore, no impacts related to creating objectionable odors will occur.

3.3.5 References

California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. Online: http://www.arb.ca.gov/ch/handbook.pdf. Accessed July 22, 2016.

____. 2016a. Area Designations Maps/State and National. May 5, 2016. Online: http://www.arb.ca.gov/desig/adm/adm.htm. Accessed on July 26, 2016.

____. 2016b. Air Monitoring Site Information. Online: http://www.arb.ca.gov/adam/. Accessed on July 21, 2016.

California Department of Industrial Relations (Cal/OSHA). 2017. Advice to Employers and Employees Regarding Work-Related Valley Fever. Online: http://www.dir.ca.gov/dosh/valley-fever-home.html. Accessed on January 19, 2017.

County of San Luis Obispo Public Health Department. 2015. Public Health Bulletin, Fall 2015. Valley Fever: Danger In The Dirt. Online: http://www.slocounty.ca.gov/Assets/PH/Bulletins/2015/County+of+SLO+Fall+2015+Public+Health+Bulletin.pdf. Accessed January 19, 2017.

ENVIRON International Corporation and the California Air Districts. 2013. *California Emissions Estimator Model User's Guide Version 2013.2*. Appendix A: Calculation Details for CalEEMod. July 2013. Online: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixa.pdf?sfvrsn=2. Accessed on July 26, 2016.

National Oceanic and Atmospheric Administration (NOAA). 1994. NOAA Technical Memorandum NWS WR-223: Climate of San Luis Obispo, California. February 1994. Online: https://www.weather.gov/media/wrh/online_publications/TMs/TM-223.pdf. Accessed on July 25, 2016.

San Luis Obispo County Air Pollution Control District (SLOAPCD). 2001. *2001 Clean Air Plan, San Luis Obispo County*. December 2001. Online: http://www.slocleanair.org/images/cms/upload/files/business/pdf/CAP.pdf. Accessed on July 27, 2016.

____. 2005. *Particulate Matter Report, Implementation of SB 656 Requirements*. July 27, 2005. Online: http://www.slocleanair.org/images/cms/upload/files/business/pdf/PM.ReportFin.pdf. Accessed on July 27, 2016.

____. 2012a. *2012—2017 Strategic Action Plan Update*. November 14, 2012. Online: http://www.slocleanair.org/images/cms/upload/files/B-1%281%29.pdf. Accessed on July 28, 2016.

____. 2012b. *CEQA Air Quality Handbook: A Guide For Assessing The Air Quality Impacts for Projects Subject to CEQA Review*. April 2012. Online: http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf. Accessed on July 15, 2016.

____. 2016. APCD NOA Map. Online: http://www.google.com/fusiontables/embedviz?q=select+col2+from+10F_MB32n2w_l01FmGAWUStyGqbwZUR-OT8Vb8BV3&viz=MAP&h=false&lat=35.36498680536373&lng=-120.6753222207031&t=1&z=9&l=col2&y=2&tmplt=2&hml=KML. Accessed on October 7, 2016.

U.S. Environmental Protection Agency (USEPA). 2016. Air Data: Interactive Map. Online: http://www.epa.gov/airdata/ad_maps.html. Accessed on July 21, 2016.

Western Regional Climate Center (WRCC). 2016a. Paso Robles Muni AP, California – Climate Summary. Station No. 046742, from 7/1/1948 to 6/9/2016. Online: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6742. Accessed on July 19, 2016.

____. 2016b. Las Tablas, California Wind Frequency Table. Mean wind speed from January 1, 2003 to July 1, 2016. Online: http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?caCLST. Accessed on October 5, 2016.

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3.4 BIOLOGICAL RESOURCES

3.4.1 Introduction

This section describes biological resources (vegetation, fish, wildlife, and wetlands) in the project area, identifies potential impacts on sensitive habitats and species that could result from the implementation of the project, and concludes that impacts on biological resources will be less than significant after implementation of Applicant Proposed Measures (APMs), described in Section 3.4.4.2. The project's potential effects on biological resources were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.4-1, CEQA Checklist for Biological Resources, and are discussed in more detail in Section 3.4.4, Applicant-Proposed Measures and Potential Impacts. The biological resources technical biological reports (BRTRs) referenced in this section are included as Appendix P (Substation BRTR) and Appendix Q (Power Line BRTR).

Table 3.4-1. CEQA Checklist for Biological Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES ***Would the project:***				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or USFWS?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or USFWS?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling,	☐	☐	☒	☐

Table 3.4-1. CEQA Checklist for Biological Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.2 Regulatory Background and Methodology

3.4.2.1 Regulatory Background

Federal

Endangered Species Act

The federal Endangered Species Act of 1973 (ESA; United States Code [U.S.C.] Title 16, Sections 1531–1544)*, as amended,* protects plants, fish, and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries). Section 9 of the ESA prohibits the "take" of listed fish and wildlife, where "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (Code of Federal Regulations [CFR] Title 50, Section 17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant *under federal jurisdiction* and removing, cutting, digging-up, damaging, or destroying any listed plant in knowing violation of state law (16 U.S.C. 1538).

The ESA allows for issuance of incidental take permits to private parties either in conjunction with a Habitat Conservation Plan (HCP) or as part of a Section 7 consultation (which is discussed in the following paragraph). Under Section 10 of the ESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the project area, identifying impacts to the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate such impacts.

Under Section 7 of the ESA, federal agencies are required to consult with USFWS and/or NOAA Fisheries, as applicable, if their actions—including permit approvals or funding—may affect a federally listed species (including plants) or designated critical habitat. If the project is likely to adversely affect a species, the federal agency will initiate formal consultation with USFWS and/or NOAA Fisheries and issue a biological opinion as to whether a proposed agency action(s) is likely to jeopardize the continued existence of a listed species (jeopardy) or adversely modify critical habitat (adverse modification). As part of the biological opinion, USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided that the action will not jeopardize the continued existence of the species or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–711) protects all migratory birds, including active nests and eggs. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others, including their body parts (for example feathers and plumes), active nests, and eggs. A complete list of protected species can be found in 50 CFR 10.13. Enforcement of the provisions of the federal MBTA is the responsibility of USFWS.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668) specifically protects bald and golden eagles and their nests from intentional harm or trade in parts of these species. The 1972 amendments increased penalties for violating provisions of the BGEPA or regulations issued pursuant thereto and strengthened other enforcement measures. Rewards are provided for information leading to arrest and conviction for violation of the BGEPA.

Clean Water Act

Waters and Wetlands: Clean Water Act Sections 401 and 404

The purpose of the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Waters of the United States include rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3).

The U.S. Environmental Protection Agency (USEPA) and U.S. Army Corps of Engineers (USACE) have recently released a new rule that would revise this definition and clarify which bodies of water are covered by the CWA. However, on October 9, 2015, the U.S. Court of Appeals for the 6th Circuit granted a nationwide stay on the rule, and the previous interpretations and guidance remain in effect until further notice.

USACE issues permits for work in wetlands and other waters of the United States based on guidelines established under Section 404 of the CWA. Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from USACE. USEPA also has authority over wetlands and may, under Section 404(c), veto a USACE permit.

Section 401 of the CWA requires all Section 404 permit actions to obtain a state Water Quality Certification or waiver, as described in more detail in Section 3.9, Hydrology and Water Quality.

State

California Endangered Species Act

Sections 2050–2098 of the California Fish and Game Code (the California Endangered Species Act [CESA]) prohibit the take of state-listed endangered and threatened species unless specifically authorized by the California Department of Fish and Wildlife (CDFW). The state definition of "take" is to hunt, pursue, catch, capture, or kill a member of a listed species or attempt to do so. CDFW administers the CESA and authorizes take through permits or memorandums of understanding issued under Section 2081 of the CESA, or through a consistency determination issued under section 2080.1. Section 2090 of the CESA requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

Fully Protected Species Under the California Fish and Game Code

The California Fish and Game Code designates certain fish and wildlife species as "fully protected" under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). Fully protected species may not be taken or possessed at any time, and no permits may be issued to project proponents for incidental take of these species. [1]

Protection for Birds: California Fish and Game Code

California Fish and Game Code Section 3503 et seq. state 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 makes it unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird.

[1] While take of fully protected species may be authorized by CDFW under a Natural Communities Conservation Plan (NCCP), PG&E activities are not covered by an NCCP so this permitting option is not available.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 (NPPA; California Fish and Game Code Sections 1900–1913) includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers the NPPA and generally regards as rare many plant species included on California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California. In addition, sometimes CRPR 3 and 4 plants are considered if the population has local significance in the area and is impacted by the project.

Section 1913(b) of the California Fish and Game Code includes a specific provision to allow for the incidental removal of endangered or rare plant species, if not otherwise salvaged by CDFW, within a right-of-way to allow a public utility to fulfill its obligation to provide service to the public.

California Species of Special Concern

Species of Special Concern (SSC) is a category conferred by CDFW to fish and wildlife species that meet the state definition of threatened or endangered, but have not been formally listed (e.g., federally or state-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. SSC is an administrative classification only, but these species should be considered "special-status" for the purposes of the CEQA analysis (see the Significance Criteria section of this document).

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) have jurisdiction over all surface water and groundwater in California, including wetlands, headwaters, and riparian areas. SWRCB or the applicable RWQCB must issue waste discharge requirements for any activity that discharges waste that could affect the quality of waters of the state, as described in more detail in Section 3.9, Hydrology and Water Quality.

Lake and Streambed Alteration Agreement Under the California Fish and Game Code

In addition to listed and special-status species, CDFW regulates activities under California Fish and Game Code Sections 1600–1616 that require a streambed alteration agreement permit. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake.
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake.
- Deposit debris, waste, or other materials that could pass into any river, stream, or lake.

Local

This section includes a summary of local or regional plans, policies, or regulations that identify sensitive or special-status species in the project area, as well as local polices or ordinances that protect biological resources. Because CPUC has exclusive jurisdiction over the siting, design, and construction of the project, the project is not subject to local discretionary regulations related to biological resources. The following summary is provided for informational purposes and to assist with CEQA review.

County of San Luis Obispo General Plan

The *County of San Luis Obispo General Plan* includes a *Conservation Open Space Element*, which addresses the protection and management of natural resources, as well as goals, policies, and strategies to conserve, protect, and restore biodiversity and open space (County of San Luis Obispo 2010). The *Conservation and Open Space Element* includes seven goals and policies within those goals. Specific goals pertaining to biological resources identified in the *Conservation and Open Space Element* include:

> ***Goal BR 1*** *Native habitat and biodiversity will be protected, restored, and enhanced;*
>
> ***Goal BR 2*** *Threatened, rare, endangered, and sensitive species will be protected;*
>
> ***Goal BR 3*** *Maintain the acreage of native woodlands, forests, and trees at 2008 levels;*
>
> ***Goal BR 4*** *The natural structure and function of streams and riparian habitat will be protected and restored;*
>
> ***Goal BR 5*** *Wetlands will be preserved, enhanced, and restored;*
>
> ***Goal BR 6*** *The County's fisheries and aquatic habitats will be preserved and improved; and,*
>
> ***Goal BR*** *7 Significant marine resources will be protected.*

County of San Luis Obispo Oak Woodlands Management Plan

The Native Tree Committee of the County of San Luis Obispo (County) has established an *Oak Woodland Management Plan* to encourage the long-term conservation of oak woodlands. The plan is voluntary and for informational purposes only and is not bound by the law. The plan discusses the status, economic values, natural resource values, and aesthetic and open space values of oak woodlands. In addition, the plan offers the following conservation efforts: (1) design around existing oaks; (2) encourage clustered, denser developments; (3) encourage landscaping with oak trees/natives; (4) improve oak regeneration on grazed lands; and (5) purchase conservation easements (County of San Luis Obispo 2003).

County of San Luis Obispo San Joaquin Kit Fox Mitigation Requirements

The County evaluates impacts to San Joaquin kit fox (*Vulpes macrotis mutica*) for County-permitted projects to ensure impacts to kit fox are mitigated to an insignificant level under CEQA. CDFW and the County have developed mitigation measures to reduce impacts to San

Joaquin kit fox habitat to an insignificant level. In addition, pre-determined standard mitigation ratios have been developed for County-permitted projects located within kit fox habitat areas (County of San Luis Obispo 2006).

The project is located within a County-designated kit fox habitat area with recommended general measures and practices. The project proponents will take into consideration local policies and land use priorities and concerns as they relate to biological resources; however, the project is exempt from the County's discretionary permitting and mitigation and CPUC is the lead agency under CEQA.

City of El Paso De Robles General Plan

The *City of El Paso De Robles General Plan* includes a *Conservation Element* and *Open Space Element*, which address the City of El Paso de Robles's (City) commitment to rehabilitate and enhance the environmental quality of the planning area through protection, planning, and management of natural resources (Rincon Consultants, Inc. 2003). The General Plan includes the following goal pertaining to biological resources:

> ***Goal C-3: Biological Resources.*** *As feasible, preserve native vegetation and protected wildlife, habitat areas, and vegetation, through avoidance, impact mitigation, and habitat enhancement.*

Specific policies identified to help achieve this goal include:

> ***Policy C-3A: Oak Trees.*** *Preserve existing oak trees and oak woodlands. Promote the planting of new oak trees; and,*
>
> ***Policy C-3B: Sensitive Habitat.*** *Incorporate habitats into project design, as feasible, including: oak woodlands, native grasslands, wetlands, and riparian areas.*

City of El Paso de Robles Oak Tree Preservation Ordinance

The *City of El Paso De Robles Oak Tree Ordinance* (Ordinance No. 835 N.S.), as amended in 2001 (Municipal Code Amendment 2001-001-Oak Trees) ensures the "preservation of oak trees in order to maintain the heritage and character of the City of El Paso de Robles ("The Pass of the Oaks") as well as preserve the beauty and identity of the community" (City of El Paso de Robles 2002). While not applicable to the project, the Oak Tree Ordinance requires permits to prune and permits to remove oak trees as identified in Section 10.01.030 as well as encourages preservation and maintenance of existing oak trees as identified in Section 10.01.070.

3.4.2.2 Methodology

This section summarizes the methods used to identify and analyze potential impacts on sensitive biological resources that may occur in the project area. The project area is defined as all new and existing facilities, access roads, landing zones, staging and storage areas, and pull sites. The project area is within the larger Biological Study Area (BSA). The BSA was established to include the maximum anticipated extent of project-related effects and includes the project area as well as an additional 400-foot buffer around the new 70 kV power line segment, an additional 100-foot buffer around the reconductoring segment, and an additional 250-foot buffer around

Estrella Substation. The BSA was slightly expanded in some areas to account for variability in the design of the project area (Figure 3.4-1, Biological Study Area Map). As described below, biologists began their research with a database searches and literature reviews to determine which special-status plants, natural communities, and wildlife might have potential to occur in the project area. Using this information, the biologists conducted detailed field surveys of the BSA, as defined below. More detailed descriptions of these methods are provided in the project's BRTRs, which are included as Appendices P and Q.

Species Considered to be of Special Status

Special-status species include those that are:

- Listed or candidates for listing as rare, threatened or endangered under the ESA or CESA;
- Plants included in the online version of the CNPS Inventory of Rare and Endangered Plants of California as CRPR 1A, 1B, 2A, or 2B;
- Fish or wildlife designated as a SSC or a fully protected species by the CDFW; and/or,
- Natural communities were considered to be special-status if they were identified on the most recent CDFW List of Vegetation Alliances and Associations as being highly imperiled.

Database Searches

The following biological databases were queried for records of special-status plants, natural communities, and wildlife that might have potential to occur in the project area:

- USFWS list of the project area for federally listed and proposed endangered, threatened, and candidate species and their designated critical habitat;
- CNPS online Inventory of Rare and Endangered Vascular Plants of California; and,
- California Natural Diversity Database (CNDDB).

A CNDDB and CNPS database search for special-status species typically includes nine U.S. Geological Survey (USGS) 7.5-minute quadrangle maps for a project located within a single quadrangle—the quadrangle that covers the project area, and the eight quadrangles that surround the project quadrangle. However, in this case, the project area spanned three quadrangles; therefore, additional quadrangles were searched to account for all the areas surrounding the three project quadrangles. A total of 12 quadrangles were searched, including Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, and San Miguel. Results of the CNDDB query showing sensitive plant and wildlife species in the project vicinity are shown on Figure 3.4-2, Land Cover Map. Other information sources consulted to determine which special-status species could potentially occur in the project area included:

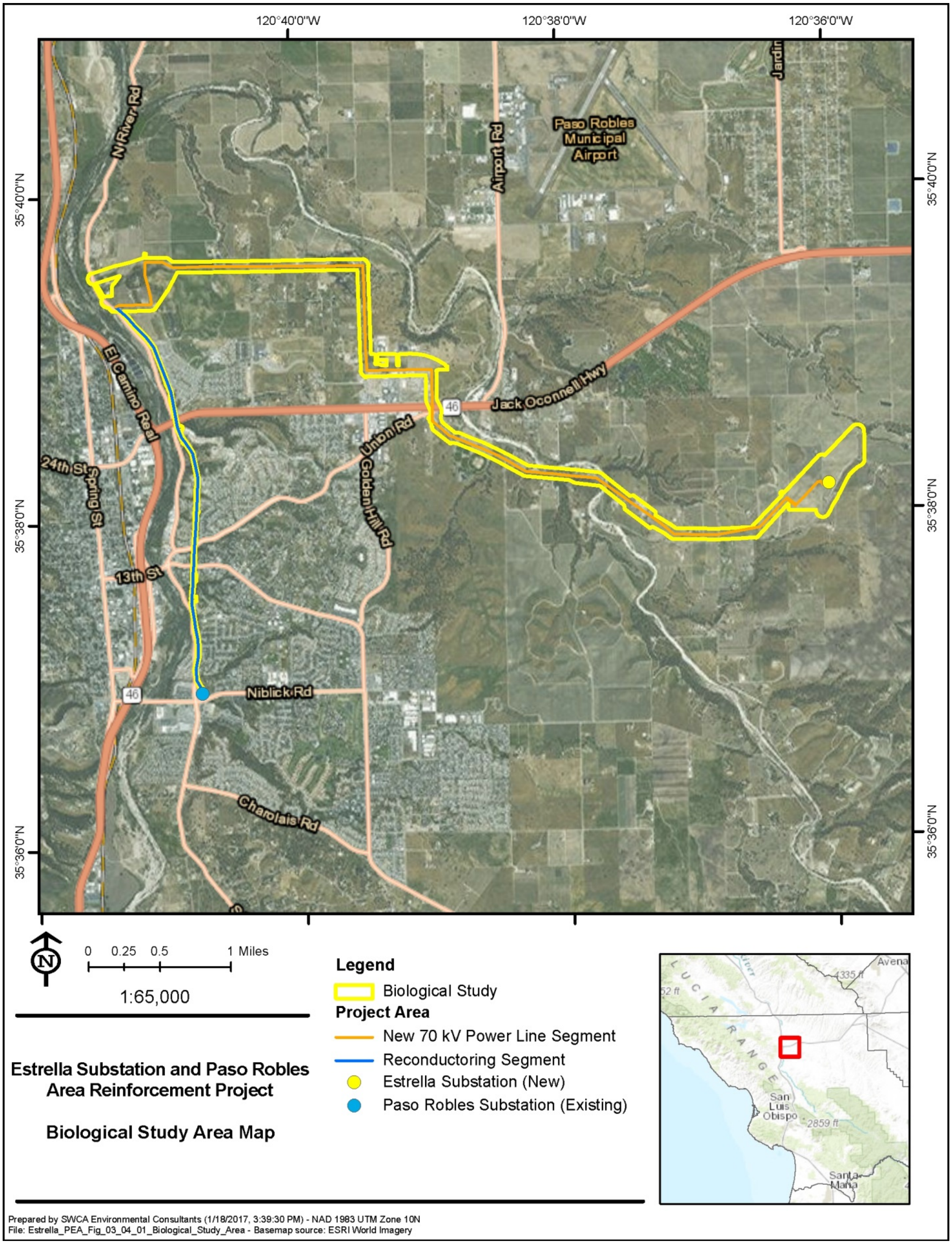
- *Estrella Substation and Paso Robles Area Reinforcement Project: Biological Resources Technical Report for the 70 kV Power Line* (Appendix Q);

- *Estrella Substation and Paso Robles Area Reinforcement Project: Biological Resources Technical Report for Estrella Substation* (Appendix P);
- *Biological Report for River Oaks II, 2013 Revised Study Area* (Althouse and Meade, Inc. 2013);
- Natural Resources Conservation Service Web Soil Survey (NRCS 2016);
- USFWS Critical Habitat Portal (USFWS 2016a);
- National Wetland Inventory (USFWS 2016b);
- USGS National Hydrography Dataset (USGS 2016a);
- CDFW's List of Vegetation Alliances and Associations (CDFW 2010);
- CDFW's California Wildlife Habitat Relationship Systems (CDFW 2016d);
- Calflora (Calflora 2016);
- *Jepson Manual: Vascular Plants of California* (Baldwin et. al 2012);
- *A Manual of California Vegetation* (Sawyer et. al 2009);
- *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986);
- eBird, an online database of bird distribution and abundance (eBird 2016);
- *A Guide to the Amphibians and Reptiles of California* (California Herps 2000–2016);
- USGS 7.5-minute series topographic quadrangle maps (USGS 2016b); and,
- Aerial photographs.

Field Surveys

Field surveys for the project focused on areas within the BSA, as described below.

Figure 3.4-1. Biological Study Area Map



Reconnaissance Surveys

Reconnaissance-level surveys were conducted between April 20–22 and 27–30, 2016. The surveys entailed walking meandering transects in the BSA, and surveying areas that appeared to support sensitive biological resources. The following tasks were conducted during the reconnaissance-level surveys:

- Plant communities and habitat types were identified and mapped in the BSA, then evaluated for special-status plant suitability.
- Baseline data was collected for wildlife special-status species. Habitat for various special-status species was observed and recorded. Uplands and aquatic features in the BSA were evaluated to determine habitat suitability.
- Wetlands, waters, and riparian areas that are potentially under the jurisdiction of USACE, CDFW, and/or RWQCB were identified and recorded. Wetlands and waters were identified under the scope of waters as defined under *Rapanos* (USACE 2008a).

  Habitat types were evaluated for their potential to serve as wildlife movement corridors or native wildlife nursery sites.

Botanical Surveys

Botanical surveys were conducted in the Estrella Substation BSA on March 3–4 and May 6, 2016. Botanical surveys were conducted in the new 70 kV power line segment and reconductoring segment BSA between April 20–22, April 27–30, and June 6–8, 2016. Survey methods included walking transects throughout the BSA where suitable habitat was present to ensure thorough coverage. Botanical surveys were conducted over a range of bloom periods to capture the flowering period of all special-status plants that were determined to have a likelihood for occurrence in the BSA. The *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFW 2009) was generally followed to facilitate a consistent and systematic approach to the survey and assessment of special-status native plants and natural communities.

The region received nearly 88% of the average annual rainfall (City of El Paso de Robles 2016). This was the first rainy season that followed a 3-year drought, providing adequate conditions for the detection of rare plants.

Focused Surveys

A focused survey was conducted in June 2016 to evaluate the potential for San Joaquin kit fox to occur at Estrella Substation. The County's *Kit Fox Habitat Evaluation Form* was completed to assess the quality of habitat at and around Estrella Substation. The survey was then conducted by walking transects approximately 10 feet apart, identifying suitable prey base, and mapping dens that could be considered suitable for San Joaquin kit fox. Burrows have the potential to be dens if they had entrances that were 4 inches or larger. Survey results are summarized in the San Joaquin Kit Fox discussion in the Special-Status Species section of Section 3.4.3.2, below. A more detailed description of the methods used and the results of this habitat assessment are reported in the project's *Estrella Substation and Paso Robles Area Reinforcement Project: Biological Resources Technical Report for Estrella Substation* (Appendix P).

Additionally, a focused survey and habitat assessment were conducted in November 2016 to evaluate suitable habitat for California red-legged frog (*Rana draytonii*) within 1-mile of the project area. The habitat assessment methodology followed the most recent USFWS guidance, as described in *Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog* (USFWS 2005a). Survey results are summarized in the California red-legged frog discussion in the Special-Status Species section of Section 3.4.3.2 below. A more detailed description of the methods used and results of this habitat assessment are reported in the project's *Estrella Substation and Paso Robles Area Reinforcement Project: Biological Resources Technical Report for the 70 kV Power Line* (Appendix Q).

Likelihood of Presence for Special-Status Species

Using the information generated from literature reviews and field surveys, the list of special-status species with a likelihood to occur was further refined to reflect the species that may occur within the project area. The likelihood of special-status species occurrence was determined based on natural history parameters, including but not limited to, the species' range, habitat, foraging needs, migration routes, CNDDB mapped occurrences, and reproductive requirements, using the following general categories:

- *Present* – Reconnaissance-level, focused, or protocol-level surveys documented the occurrence or observation of a species in the project area.
- *Seasonally present* – Individuals were observed in the project area only during certain times of the year.
- *Likely to occur* – The species has a strong likelihood to be found in the project area prior to or during construction but has not been directly observed to date during project surveys. The likelihood that a species may occur is based on the following considerations: suitable habitat that meets the life history requirements of the species is present on or near the project area; migration routes or corridors are near or within the project area; records of sighting are documented on or near the project area; and there is an absence of invasive predators (e.g., bullfrogs). The main assumption is that records of occurrence have been documented within or near the project area, the project area falls within the range of the species, suitable habitat is present, but it is undetermined whether the habitat is currently occupied.
- *Potential to occur* – There is a possibility that the species can be found in the project area prior to or during construction, but has not been directly observed to date. The likelihood that a species may occur is based on the following conditions: suitable habitat that meets the life history requirements of the species is present on or near the project area; migration routes or corridors are near or within the project area; and there is an absence of invasive predators (e.g., bullfrogs). The main assumption is that the project area falls within the range of the species, suitable habitat is present, but no records of sighting are located within or near the project area and it is undetermined whether the habitat is currently occupied.

- *Unlikely to occur* – The species is not likely to occur in the project area based on the following considerations: lack of suitable habitat and features that are required to satisfy the life history requirements of the species (e.g., absence of foraging habitat; lack of reproductive areas, and lack of sheltering areas); presence of barriers to migration/dispersal; presence of predators or invasive species that inhibit survival or occupation (e.g., the presence of bullfrogs or invasive fishes); lack of hibernacula, hibernation areas, or estivation areas on site.
- *Absent* – Suitable habitat does not exist in the project area, the species is restricted to or known to be present only within a specific area outside of the project area, or focused or protocol-level surveys did not detect the species.

Unless otherwise noted, the methodology and environmental information presented in this section are summarized from the BRTRs for the Estrella Substation and Paso Robles Area Reinforcement Project (Appendices P and Q).

3.4.3 Environmental Setting

3.4.3.1 Regional

The project is generally located approximately 25 miles east of the Pacific Ocean, and situated between the Temblor Range and the Santa Lucia Coastal Range, at the southern end of the Salinas River Valley. Topography within the vicinity of the project ranges from flat to gently sloping rolling hills (0–20%) to steep slopes (>45%) along roadside cuts. Elevation in the vicinity of the project ranges from approximately 650 and 1,000 feet above mean sea level.

San Luis Obispo County has a Mediterranean climate, which includes warm to hot, dry summers and mild to cool, wet winters. The coastal climate within San Luis Obispo County is generally mild with average temperatures ranging from 45 to 70 degrees Fahrenheit (°F). Inland temperatures are much more variable with average temperatures ranging from 35 to 93°F. Precipitation in the region also varies spatially and temporally with increasing precipitation typically occurring near the coast. Average annual rainfall in the vicinity of the project is 15.2 inches with approximately 90% of the rain falling between October and April. Average monthly rainfall in the summer months is significantly lower than the winter months only averaging about 0.2 inches per month between May and September. The above temperature and precipitation data is based on Monthly Climate Normals data published by the National Oceanic and Atmospheric Administration (NOAA) from the Paso Robles, California climate station (COOP:046730), located approximately 0.3 mile west of the project for the period between 1981 and 2000 (NOAA 2016).

3.4.3.2 Local

The project is located in the north-central portion of San Luis Obispo County, California, within and around Paso Robles. The project route begins at Estrella Substation which is located approximately 5 miles east of downtown Paso Robles in an existing vineyard. The new 70 kV power line segment extends generally westward for 7 miles spanning over vineyards, blue oak woodlands, nonnative grasslands, Huerhuero Creek, large residential properties, and a light industrial use area. At River Road, the new 70 kV power line segment will interconnect with the existing San Miguel-Paso Robles 70 kV power line approximately 200 feet east of the Salinas River riparian corridor. The reconductoring segment then extends south for approximately 3 miles paralleling portions of Salinas River, and generally spanning over dense residential communities and commercial areas with interspersed blue oak woodland and nonnative grassland habitat. The project terminates at Paso Robles Substation in a densely developed commercial and residential area in Paso Robles. The project is located on a combination of privately owned and City-owned parcels.

Land Cover, Vegetation, and Wildlife Habitats

The following plant communities were classified using *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), unless noted otherwise. Nine different plant communities were identified in the BSA, five of which are present in the project area: 1) blue oak woodlands; 2) central (Lucian) coastal scrub; 3) sandy wash; 4) Central Coast cottonwood-willow riparian forest; 5) coastal and valley freshwater marsh; 6) nonnative grasslands; 7) agricultural; 8) ruderal; and 9) urban/developed. Although Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, central (Lucian) coastal scrub, and sandy wash were observed in the BSA, they do not occur in the project area and will not be affected by the project, and thus are not described further in this document. The sections that follow provide descriptions of these classifications and acreage of each vegetation community observed in the project area. Figures 3.4-2a through 3.4-2g, Land Cover Map, illustrates the vegetation communities traversed by the project. No CRPR 3 and 4 plants with populations of local significance will be impacted by the project.

Blue Oak Woodland

Blue oak woodlands are typically dominated by blue oak (*Quercus douglasii*) trees, yet often include other oak species as well as gray pine (*Pinus sabiniana*). Blue oak woodlands range from open savannas to dense woodlands, and often contain an understory of grasses and herbs. This habitat type usually contains well-drained soils and occurs below 4,000 feet (Holland 1986). Approximately 13 acres of blue oak woodlands were observed in scattered locations throughout the project area. Blue oak woodlands in the project area frequently contained a relatively open canopy and an understory of nonnative grasses and forbs, with more dense stands occurring along riparian areas. Interspersed stands of valley oak (*Quercus lobata*) and coast live oak (*Quercus agrifolia*) trees were observed throughout the blue oak woodlands in the project area.

Nonnative Grassland

Nonnative grasslands consist of dense to sparse cover of annual grasses generally less than 1 meter high and are dominated by nonnative grasses and forbs, including soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), slender wild oats (*Avena barbata*), cheatgrass (*Bromus tectorum*), red brome (*Bromus madritensis*), red-stemmed filaree (*Erodium cicutarium*), and short-pod mustard (*Hirschfeldia incana*). Native species may include western ragweed (*Ambrosia psilostachya*), lupines (*Lupinus* spp.), and doveweed (*Croton setigerus*) (Holland 1986). Approximately 58 acres of nonnative grassland habitat were observed throughout the project area, frequently overlapping with blue oak woodlands and rural developments. Several areas of nonnative grasslands throughout the project area are subject to frequent mowing or grading.

Agricultural

Agricultural habitat is identified by active cultivation and planting of crops in an area. Fifty-five acres of agricultural habitat occurs within the project area, including Estrella Substation. The main form of agriculture in the project area is grape vineyards, with a smaller abundance of row crops and forage crops.

Ruderal

Ruderal habitat is often defined as occurring along road edges and other highly disturbed areas. Typically, species dominating ruderal habitat areas are able to quickly colonize disturbed areas due to their high rates of seed dispersal and fast growth. Ruderal habitat is typically dominated by nonnative vegetation, but some native species can also occur. Approximately 11 acres of ruderal habitat observed in the project area, generally occurring along roadsides, within rural and urban developments, and adjacent to agricultural areas. Species observed in ruderal portions of the project area included but were not limited to nonnative annual grasses, poison hemlock (*Conium maculatum*), radish (*Raphanus* spp.), mustard (*Brassica* spp.), and various thistles.

Urban/Developed

Urban/developed habitat is found in regularly and highly disturbed areas, including areas that have been developed and/or include landscaping such as trees, shrubs, ornamental plants, and lawns. Vegetation density, canopy cover, and species composition will vary based on the structure and composition of the developed area. Vegetation may include native or exotic species, or a combination of both. Approximately 32 acres of urban / developed lands occur along and within rural and urban developments and recreational areas. Vegetation in these areas includes manicured lawns and ornamental trees and shrubs.

Drainages and Wetlands

Several drainage features are located within the BSA, including Salinas River, Huerhuero Creek, Dry Creek, and twelve other unnamed ephemeral drainages. These drainage features are likely considered jurisdictional by USACE, CDFW, and RWQCB. In addition, five preliminarily mapped wetland features are present in the BSA. Other drainage and wetland features observed in the project area either: a) did not exhibit defined bed, banks, or an ordinary high water mark (OHWM); b) did not have a hydrologic connection to downstream waters of the United States; or c) did not meet the definition of a jurisdictional wetland and are therefore are not generally considered jurisdictional by USACE. All potentially jurisdictional wetlands and other waters mapped in the project area are located outside of construction work areas.

Figure 3.4-2a. Land Cover Map – Sheet 1 of 7

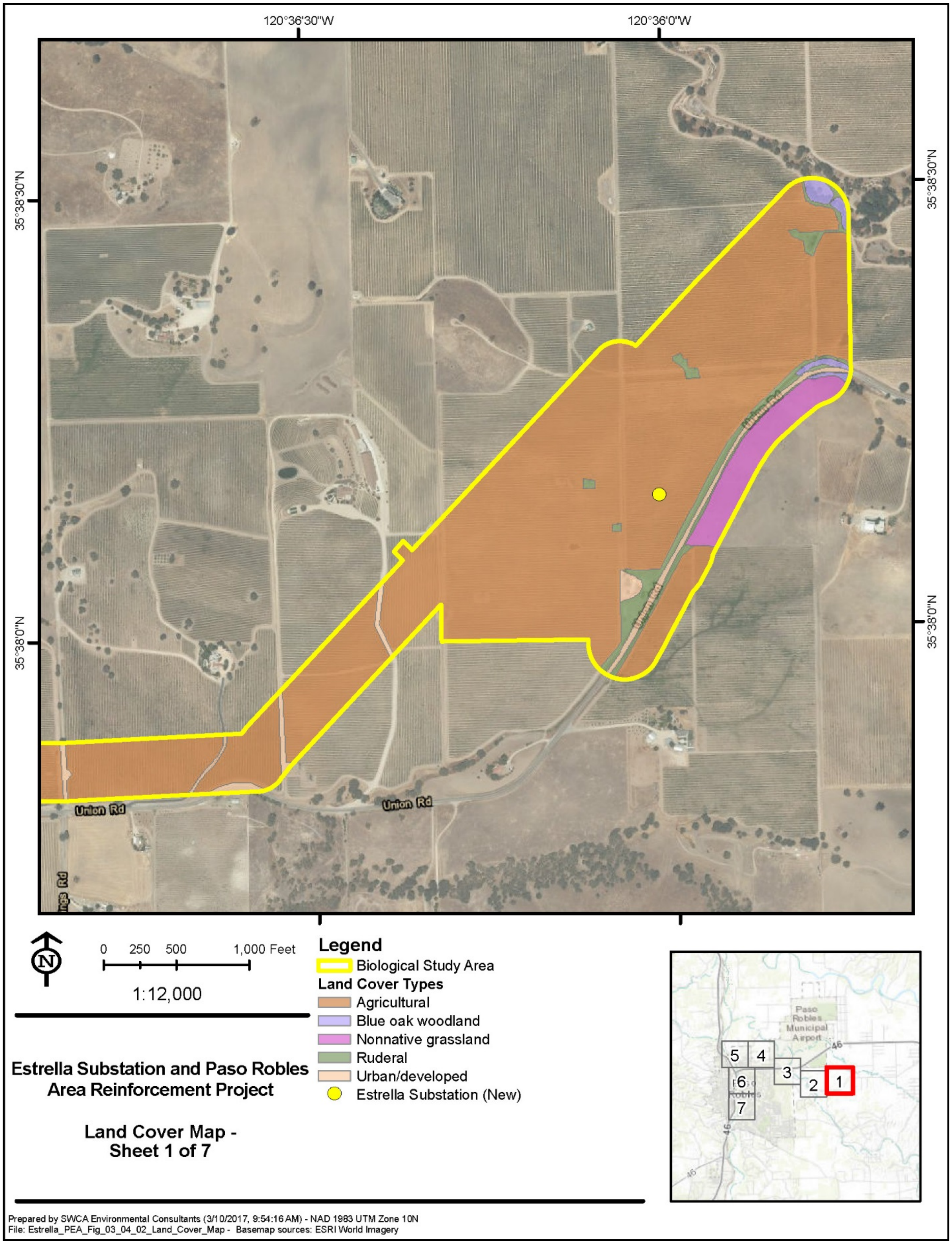


Figure 3.4-2b. Land Cover Map – Sheet 2 of 7

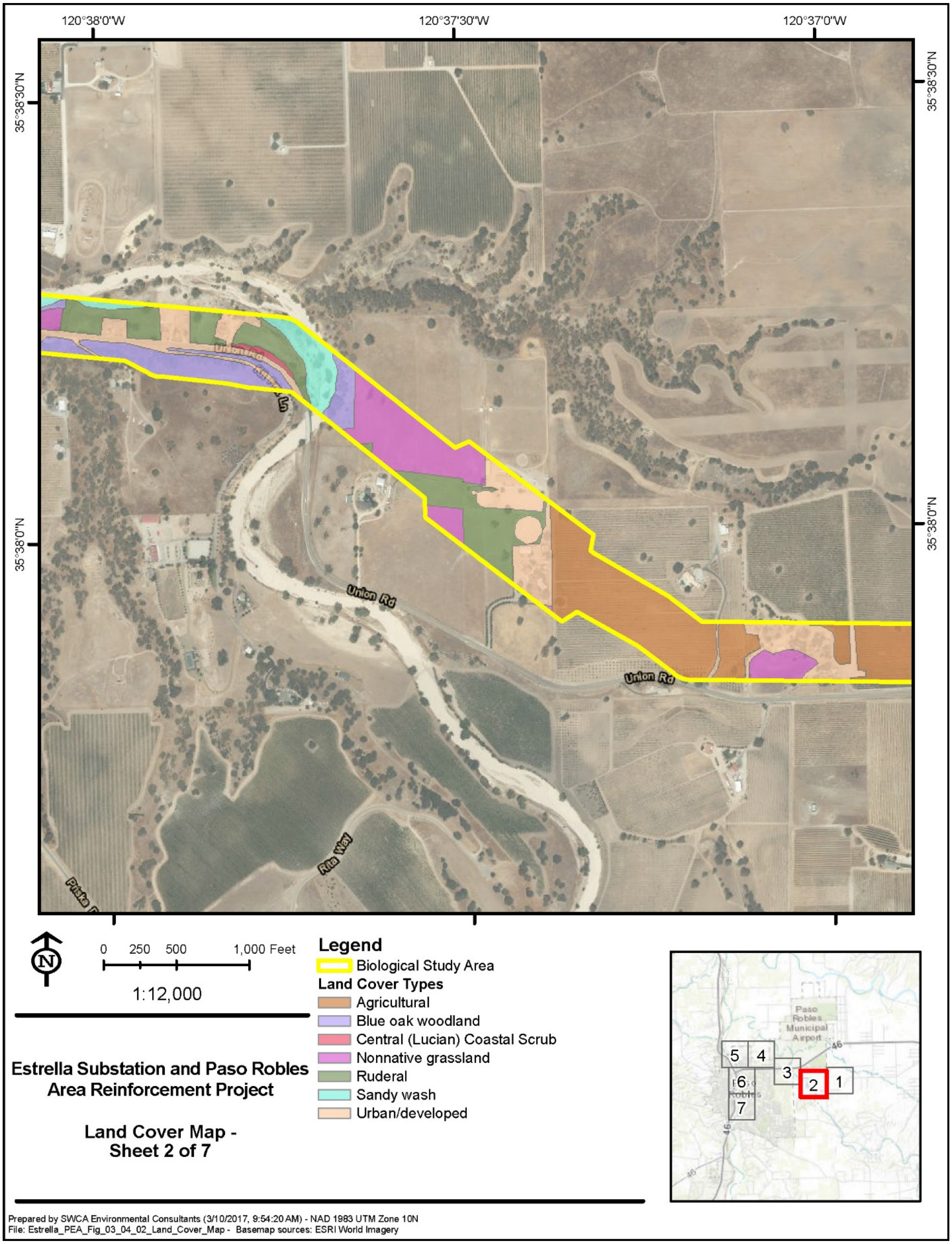


Figure 3.4-2c. Land Cover Map – Sheet 3 of 7

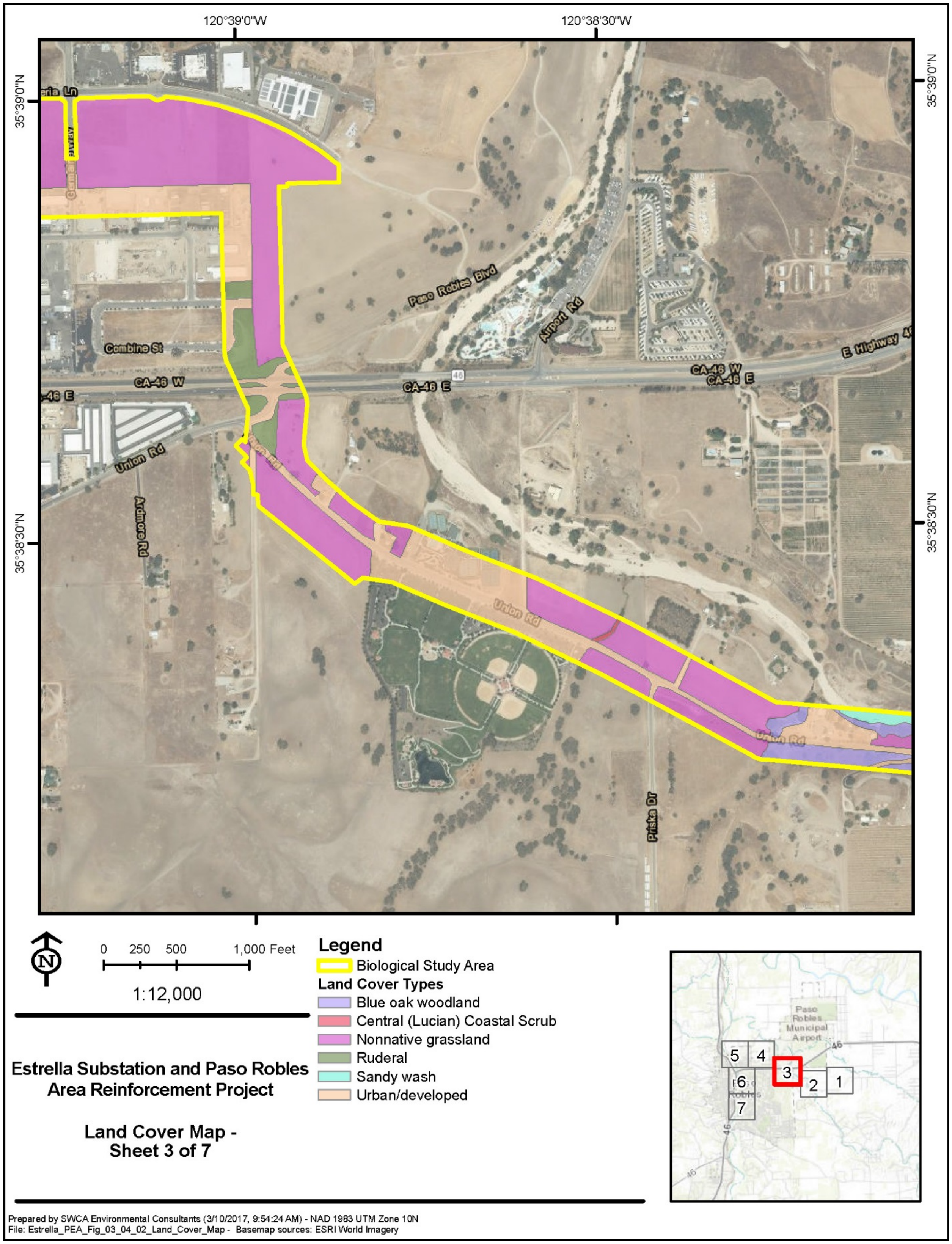


Figure 3.4-2d. Land Cover Map – Sheet 4 of 7

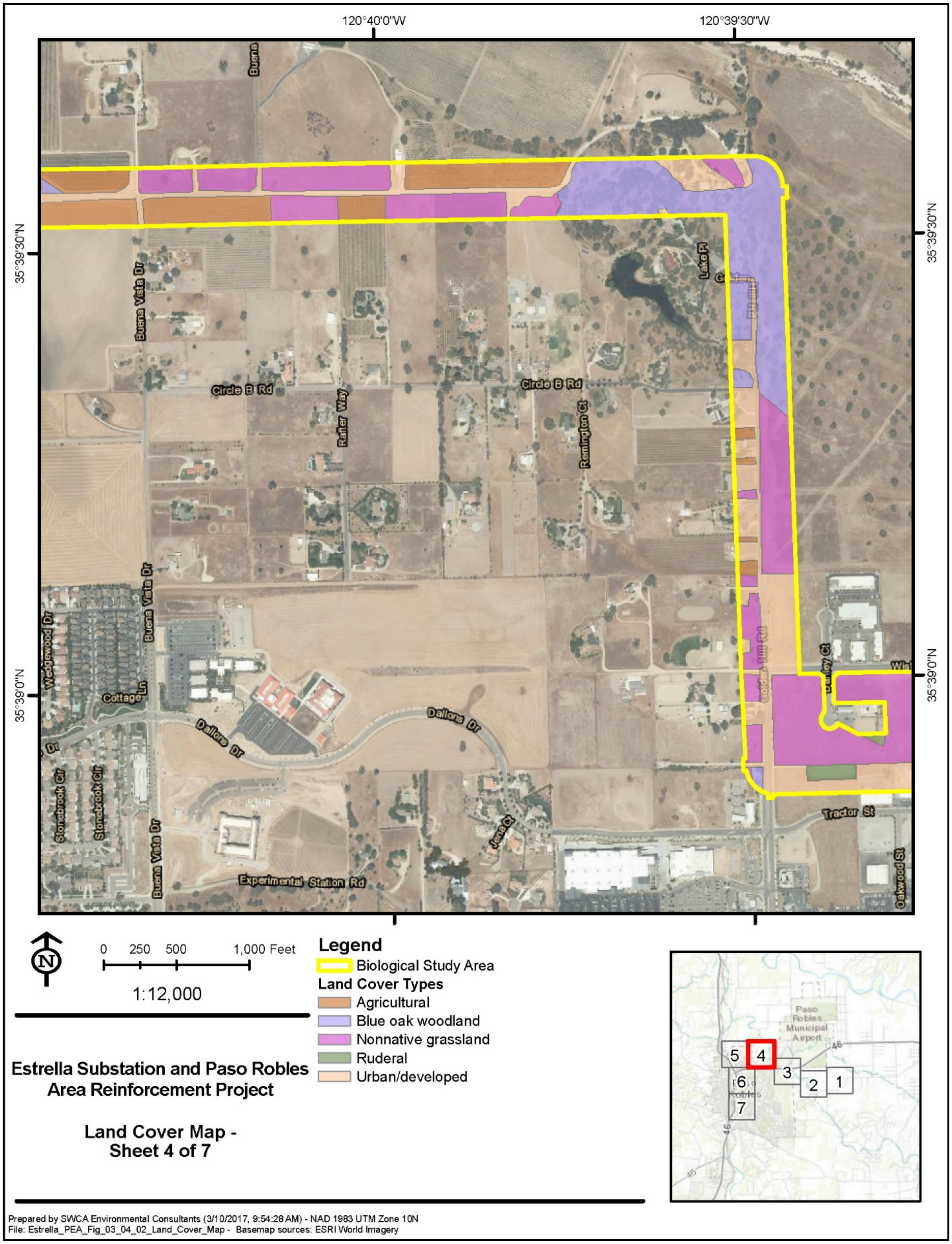


Figure 3.4-2e. Land Cover Map – Sheet 5 of 7

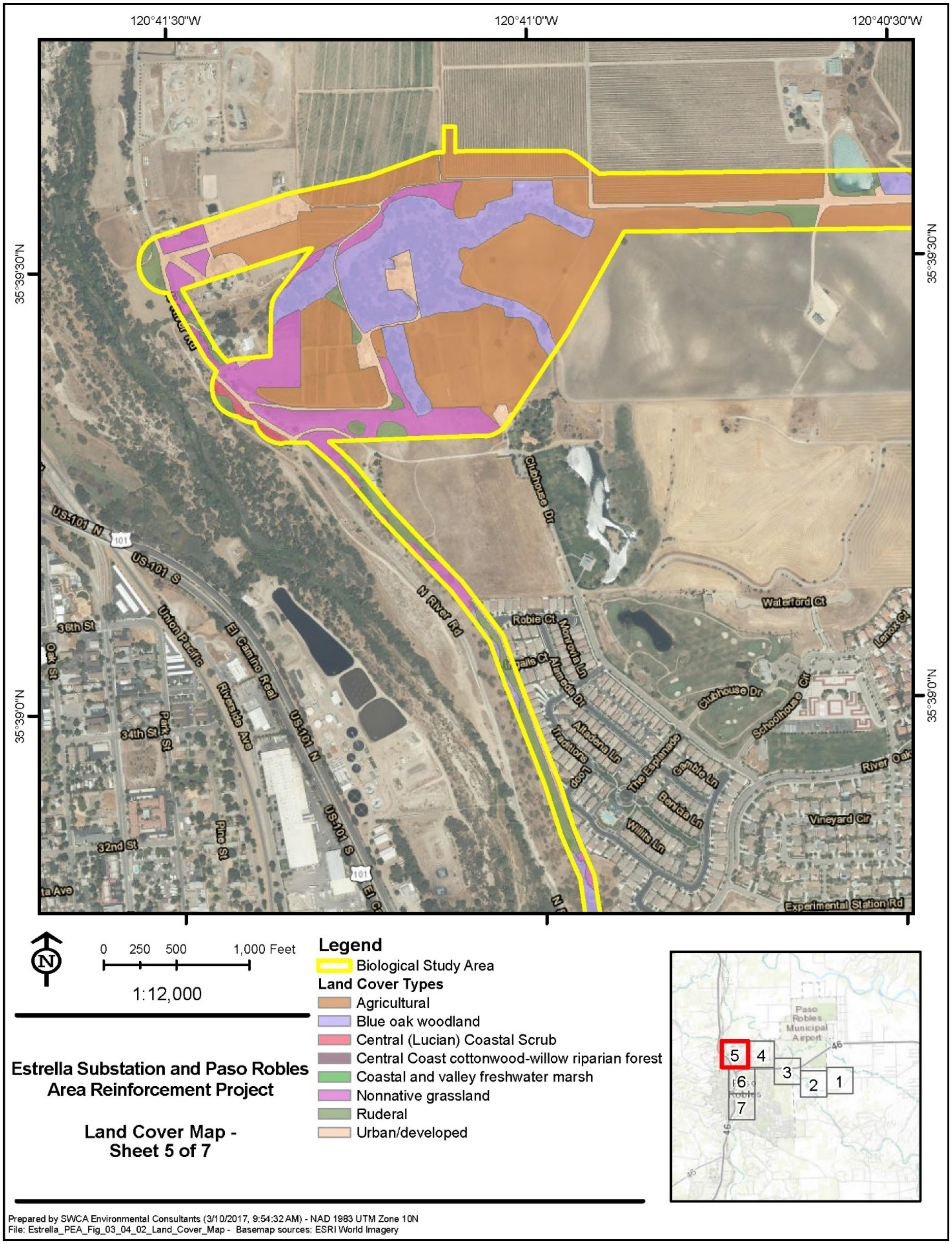


Figure 3.4-2f. Land Cover Map – Sheet 6 of 7

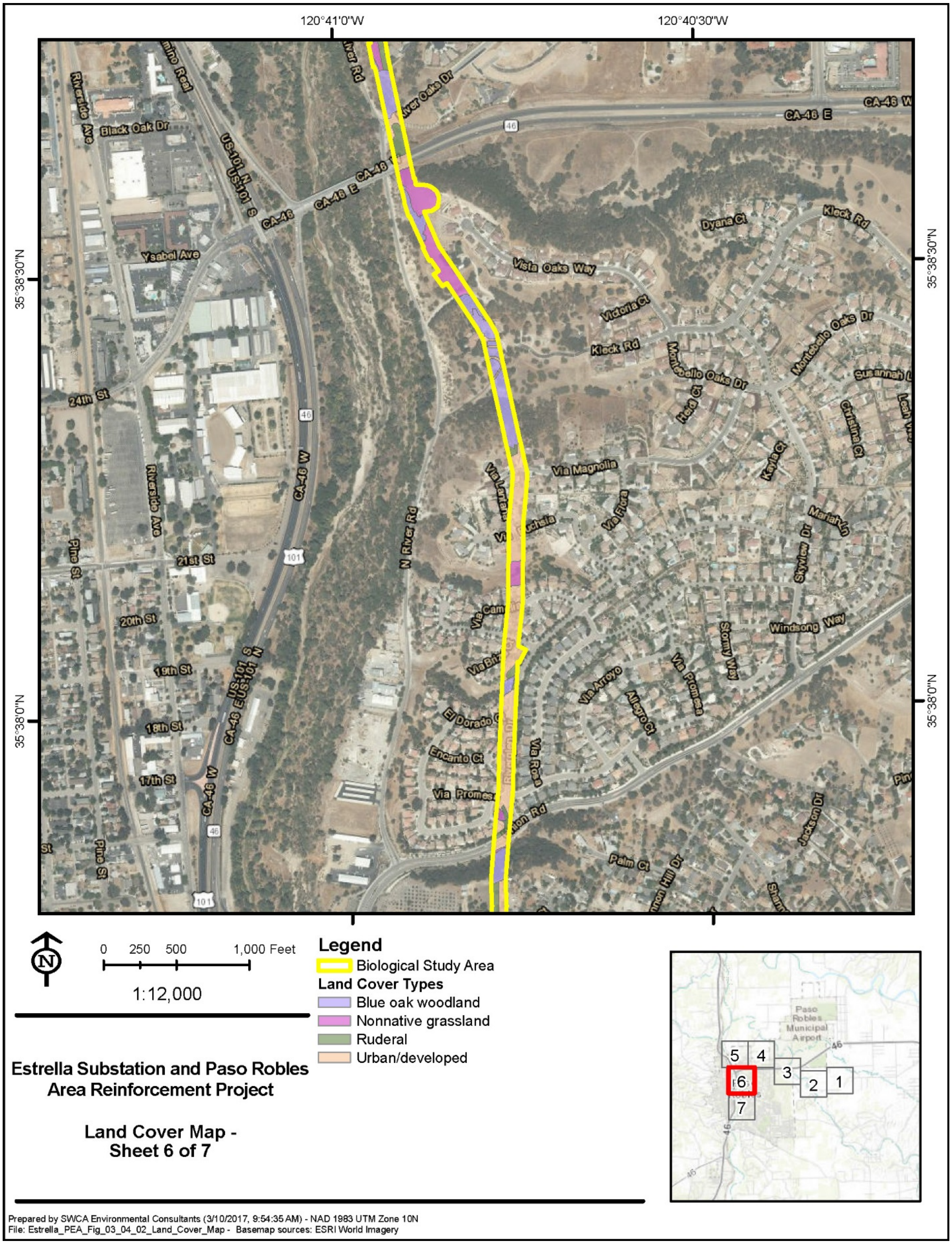
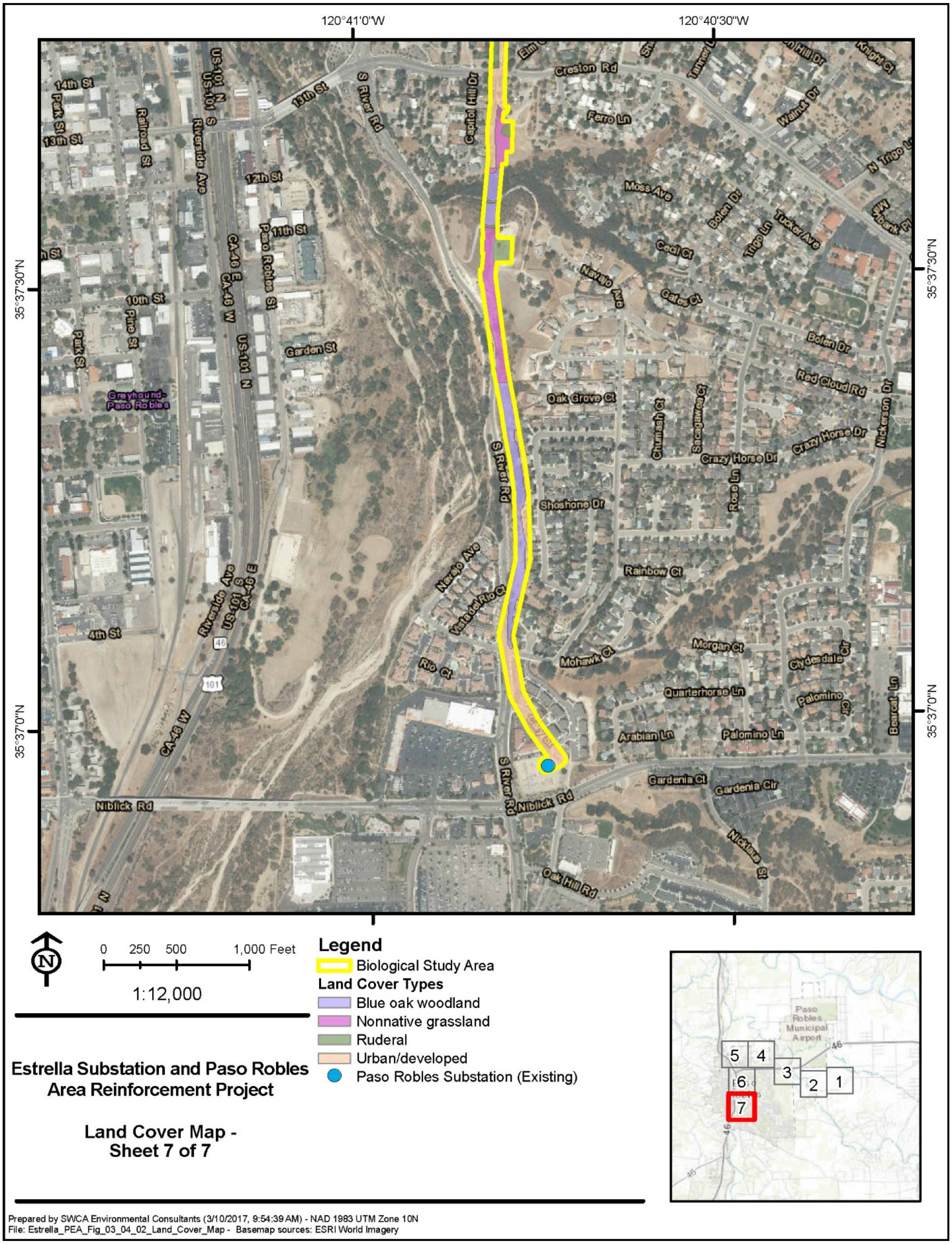


Figure 3.4-2g. Land Cover Map – Sheet 7 of 7



Drainages

Salinas River is the largest river of the Central Coast, running 170 miles from Santa Margarita flowing north-northwest through the central California Coast Ranges to Monterey Bay. Salinas River is a wildlife corridor, and provides the principal source of water from its reservoirs and tributaries for the farms and vineyards of the Salinas Valley. The project does not cross Salinas River, but the reconductoring segment of the project generally follows the river, east of Salinas River Road, for approximately 3 miles. The Salinas River riparian forest habitat ranges from approximately 150 to 1,300 feet west of the project, separated by River Road, which runs parallel to the river for the length of the reconductoring segment. Salinas River is subject to USACE, CDFW, and RWQCB jurisdiction.

Huerhuero Creek bisects the new 70 kV power line segment approximately 1.5 miles west of Estrella Substation. The headwaters of Huerhuero Creek occur in the Coast Ranges just south of Creston. The ephemeral creek generally flows northwest crossing over and briefly paralleling the project before draining into Salinas River, 1 mile southwest of San Miguel Substation. The portion of Huerhuero Creek observed within the vicinity of the project area contains a sandy substrate with a sparse herb layer and intermittent cottonwood (*Populus fremontii*), willow (*Salix* spp.), and other woody shrubs scattered throughout the drainage. Huerhuero Creek contains a defined bed and banks, and clearly visible OHWMs, and is likely considered jurisdictional by USACE, CDFW, and RWQCB.

Dry Creek is an ephemeral drainage originating from the coastal mountain foothills approximately 4 miles northeast of Creston, flowing over 13 miles northwest through blue oak woodland to Huerhuero Creek near Airport Road, approximately 0.6 mile north of SR-46. The project, at its nearest point, is approximately 1,500 feet south of Dry Creek and does not cross the drainage. Dry Creek is likely to be subject to USACE, CDFW, or RQWCB jurisdiction.

Twelve unnamed ephemeral drainages were observed in the BSA, 10 of which are present in the project area. These features convey overland flow and eventually drain into Huerhuero Creek and/or Salinas River. These drainage features generally contained an understory of annual grasses and forbs with blue oak woodlands lining the drainage channels. These drainage features are likely to be considered jurisdictional by USACE, CDFW, and RWQCB.

Wetlands

Five potentially jurisdictional wetland features are present in the BSA, including: a) a freshwater emergent wetland along Union Road, b) two seasonal wetlands approximately 200 feet east of Buena Vista Drive, c) a seasonal wetland approximately 1,200 feet northeast of the interconnection point, and d) a freshwater marsh along North River Road near the interconnection point. Four additional seasonal wetlands were preliminarily mapped along Golden Hill Road during the reconnaissance-level field surveys; however, during a subsequent site visit on November 14, 2016, these features were eliminated due to a Recreational Vehicle (RV) park development, which graded over and filled the wetland features with a 4-foot-high earthen berm.

Although several wetland features were preliminarily mapped in the BSA, only the two seasonal wetlands east of Buena Vista Drive occur within the project area. These features were preliminarily delineated using topographic relief and the presence of wetland indicator species—coyote thistle (*Eryngium vaseyi*) and common spikerush (*Eleocharis macrostachya*). Although these features are located within the project area, they are located outside of the construction work areas.

Special-Status Species

This section describes special-status species observed (present) during project reconnaissance-level field surveys and any species considered to be likely to occur, have potential to occur, or that are seasonally present. Special-status species that are absent or unlikely to be found in the project area are not discussed in this section nor provided in the table below.

Special-Status Plant Species

A total of 53 special-status plants and 1 natural community (valley oak woodland) were identified from the database queries. Due to site-specific conditions, it was determined that 15 plants have potential to occur within the project area. Four special-status plants were determined to be unlikely to occur and the remaining 34 plants and 1 natural community were determined to be absent from the project area either because suitable habitat does not exist in the project area, the species is restricted to or known to be present only within a specific area outside of the project area, or the project area is outside of the species' elevation range.

Subsequent to the desktop review, comprehensive surveys for special-status plants were conducted in suitable habitat within portions of the project area in March, April, May, and June 2016. No federal, state, or CRPR 1 or 2 listed species were observed in the project area. Elegant buckwheat (*Eriogonum elegans*; CRPR 4.3), was observed in April and June 2016 within the BSA in: (1) the sandy wash along Huerhuero Creek, and (2) along the reconductoring segment approximately 550 feet south of the point of interconnect. Neither of the locations are within areas to be affected by the project and this species is not considered to be locally significant; therefore, this species is not addressed further in this report. Species that were determined to be unlikely to occur (Santa Lucia purple amole (*Chlorogalum purpureum* var. *Purpureum*), spreading navarretia [*Navarretia fossalis*]), Indian Valley spineflower [*Aristocapsa insignis*], and Santa Cruz microseris [*Stebbinsoseris decipiens*]) or absent from the project area are not discussed further in this report. Special-status plants that were determined to have potential to occur are described in more detail in the following paragraphs and shown in Table 3.4-3, Special-Status Plant Species with Potential for Occurrence within the Project Area and Figure 3.4-3, CNDDB Records of Sensitive Plants in the Project Vicinity.

Round-Leaved Filaree

Round-leaved filaree (*California macrophylla;* CRPR 1B.2) is known to occur in valley grassland and foothill woodland communities similar to those observed in the project area; therefore, it was determined this species has potential to occur. One CNDDB occurrence was recorded approximately 4.6 miles north of Estrella Substation; however, this record dates back to 1937. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

La Panza Mariposa Lily

La Panza mariposa lily (*Calochortus simulans*; CRPR 1B.3) occurs in sandy soils in valley grasslands and foothill woodlands similar to those observed in the project area; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Dwarf Calycadenia

Dwarf calycadenia (*Calycadenia villosa*; CRPR 1B.1) typically occurs on rocky, dry hills, ridges, grasslands, and openings in foothill woodlands. The project area falls within the range of the species, and suitable habitat is present. Therefore, this species was determined to have potential to occur. Records of occurrence have been documented within or near the project area and one CNDDB occurrence was recorded approximately 4.8 miles northwest of the project in 2001. Surveys conducted during the appropriate bloom season did not detect this species in the project area.

Hardham's Evening-Primrose

Hardham's evening-primrose (*Camissoniopsis hardhamiae*; CRPR 1B.2) is known to occur on sandy soils in oak woodlands such as those observed in the project area; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

San Luis Obispo Owl's-Clover

San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis*; CRPR 1B.2) is known to occur in grassland areas such as those observed in the project area; therefore, it was determined this species has potential to occur. One CNDDB occurrence was recorded 0.8 mile west of the project in 2005. Records of occurrence have been documented within or near the project area, the project area falls within the range of the species, and suitable habitat is present; however, surveys conducted during of the appropriate bloom season did not detect this species in the project area.

Lemmon's Jewelflower

Lemmon's jewelflower (*Caulanthus lemmonii;* CRPR 1B.2) is known to occur in grasslands similar to what was observed in the project area; therefore, it was determined this species has potential to occur. Five CNDDB occurrences have been recorded within 5 miles of the project; however, these occurrences were recorded between 1935 and 1960. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Straight-Awned Spineflower

Straight-awned spineflower (*Chorizanthe rectispina*; CRPR 1B.3) is known to occur in sandy and gravelly soils such as those observed along Huerhuero Creek, unnamed drainage channels, and blue oak woodlands; therefore, it was determined this species has potential to occur. No

CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Hall's Tarplant

Hall's tarplant (*Deinandra halliana;* CRPR 1B.1) is known to occur in grasslands and on open slopes similar to those observed in the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Yellow-flowered Eriastrum

Yellow-flowered eriastrum (*Eriastrum luteum;* CRPR 1B.2) is known to occur in sandy or gravelly soils in cismontane woodland on drying slopes. This habitat was observed in the project area; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Temblor Buckwheat

Temblor buckwheat (*Eriogonum temblorense;* CRPR 1B.2) generally occurs in sandy soils in valley grasslands such as those observed in the project area; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Santa Lucia Dwarf Rush

Santa Lucia dwarf rush (*Juncus luciensis*; CRPR 1B.2) is an obligate wetland plant and will occur in vernal pools, streams, and along roadside ditches. These cover types were observed in the project area; therefore, it was determined this species has potential to occur within these features. The nearest CNDDB occurrence was recorded approximately 3 miles southwest of the project; however, this record dates back to 1958. Suitable habitat for this species is present in wetland and water features within the project area; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Pale-Yellow Layia

Pale-yellow layia (*Layia heterotricha;* CRPR 1B.1) is known to occur in grassland areas similar to those observed throughout the project area; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Woodland Woollythreads

Woodland woollythreads (*Monolopia gracilens*; CRPR 1B.2) is known to occur in grasslands and oak woodlands similar to those observed in the project area; therefore, it was determined this species has potential to occur. One CNDDB occurrence was recorded 2.4 miles to the west-northwest, but this record dates back to 1957. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Shining Navarretia

Shining navarretia (*Navarretia nigelliformis* ssp. *radians*; CRPR 1B.2) occurs in vernal pools and clay depressions such as those observed in the project area; therefore, it was determined this species has potential to occur. Seven CNDDB occurrences have been recorded within approximately 5 miles of the project. The nearest CNDDB occurrences were recorded 0.2 mile west and 0.2 mile south-southwest in 2006 and 2014, respectively. Records of occurrence have been documented within or near the project area, the project area falls within the range of the species, and suitable habitat is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Prostrate Vernal Pool Navarretia

Prostrate vernal pool navarretia (*Navarretia prostrata*; CRPR 1B.1) occurs in alkaline floodplains vernal pools and clay depressions. This habitat was observed in the project area; therefore, this species was determined to have potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the project area.

Table 3.4-2. Sensitive Plant Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal / State / CRPR[2]**	**Habitat Associations[3]**	**Likelihood to Occur in the Project Area[4]**
round-leaved filaree* *California macrophylla*	--/--/CRPR 1B.2	Annual herb with a radial white flower. Occurs in open sites, scrub, vertic clay, and occasionally serpentine soils in valley grasslands and foothill woodlands. Blooming period: March–July. Elevation: <1,200 meters.	**Potential to occur.** Grassland and blue oak woodlands may provide habitat for this species. One CNDDB occurrence was recorded approximately 4.6 miles north of Estrella Substation; however, this record dates back to 1937. Species not observed in the project area during surveys conducted in the appropriate season.
La Panza mariposa lily *Calochortus simulans*	--/--/CRPR 1B.3	Perennial bulbiferous herb with a white to yellow bell-shaped flower with a dark red spot at the base. Occurs in meadow habitats found in chaparral, valley grassland, and foothill woodland communities. Associated with sandy (often granitic) soils. Blooming period: April–July. Elevation: 380–1,150 meters.	**Potential to occur.** Grassland and blue oak woodlands may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.
dwarf calycadenia* *Calycadenia villosa*	--/--/CRPR 1B.1	Annual herb with a white to pink ray flower up to 18 inches tall. Occurs in chaparral, valley grassland, and foothill woodlands. Associated with dry, rocky hills, ridges. Blooming period: May–October. Elevation: 240–1,350 meters.	**Potential to occur.** Nonnative grassland and blue oak woodlands may provide habitat for this species. The nearest CNDDB occurrence was recorded 4.7 miles northwest of the project in 2001. Species not observed in the project area during surveys conducted in the appropriate season.
Hardham's evening-primrose *Camissoniopsis hardhamiae*	-- /--/CRPR 1B.2	Annual herb that is robust and rosetted with a small yellow flower. Generally occurs in sandy soil, limestone, and disturbed oak woodland. Blooming period: March–May. Elevation: 140–945 meters.	**Potential to occur.** Sandy soils and blue oak woodlands may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.

Table 3.4-2. Sensitive Plant Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	Status Federal / State / CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the Project Area[4]
San Luis Obispo owl's-clover* *Castilleja densiflora* var. *obispoensis*	--/--/ CRPR 1B.2	Annual herb with cream to pale yellow flowers. Occurs in coastal grassland. Blooming period: March–June. Elevation: 10–430 meters.	**Potential to occur.** Nonnative grasslands and blue oak woodlands may provide suitable habitat for this species. The nearest CNDDB occurrence was recorded 0.8 mile east of the project in 2005. Species not observed in the project area during surveys conducted in the appropriate season.
Lemmon's jewelflower* *Caulanthus lemmonii*	--/--/CRPR 1B.2	Annual herb up to 32 inches tall with a creamy white flower with purple or brown tips. Occurs in grassland, chaparral, and scrub habitat. Blooming period: February–May. Elevation: 80–1,580 meters.	**Potential to occur.** Nonnative grassland may provide suitable habitat for this species. Five CNDDB occurrences have been recorded within 5 miles of the project; however, these occurrences were recorded between 1935 and 1960. Species not observed in the project area during surveys conducted in the appropriate season.
straight-awned spineflower *Chorizanthe rectispina*	--/--/CRPR 1B.3	Annual herb that is generally decumbent with a small yellow tube flower and white lobes. Occurs in chaparral, cismontane woodlands and coastal scrub. Associated with sandy or gravelly soils. Blooming period is April–July. Elevation: 85–1,035 meters.	**Potential to occur** Sandy soils along Huerhuero Creek and other unnamed drainages may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.
Hall's tarplant *Deinandra halliana*	--/--/CRPR 1B.1	Annual herb that grows up to 4 feet tall with deep yellow flowers. Occurs in grasslands, open slopes, sink edges, vertic clay, and rarely serpentine. Blooming period is April–May. Elevation 260–1,000 meters.	**Potential to occur.** Nonnative grasslands may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.
yellow-flowered eriastrum *Eriastrum luteum*	--/--/CRPR 1B.2	Annual herb that grows up to 10 inches tall with a bright yellow flower. Occurs in broadleafed upland forest, chaparral, and foothill woodland on drying slopes. Associated with sandy or gravel soils. Blooming period: May–June. Elevation: <1,000 meters.	**Potential to occur.** Blue oak woodlands and sandy soils along Huerhuero Creek may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted during the appropriate season.

Table 3.4-2. Sensitive Plant Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	Status Federal / State / CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the Project Area[4]
Temblor buckwheat *Eriogonum temblorense*	--/--/CRPR 1B.2	Annual herb with basal leaves, stems up to 6 inches tall, and small white flowers. Occurs in valley grassland. Associated with sandy soils. Blooming period: April–September. Elevation: 300–1,000 meters.	**Potential to occur.** Nonnative grassland and blue oak woodlands may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.
Santa Lucia dwarf rush* *Juncus luciensis*	--/--/CRPR 1B.2	Annual pale yellow-green grass-like herb that grows in wet, sandy soils of seeps, meadows, vernal pools, streams, roadsides. Fruiting period: April–August. Elevation: 300–2,040 meters.	**Potential to occur.** Seasonal wetlands and drainage features observed throughout the BSA may provide habitat for this species. One CNDDB occurrence was recorded approximately 3 miles southwest of the project; however, this record dates back to 1958. Species not observed in the project area during surveys conducted in the appropriate season.
pale-yellow layia *Layia heterotricha*	--/--/CRPR 1B.1	Annual herb that is often considered to be apple- or banana-scented with yellow to brown disk flowers. Occurs in cismontane, pinyon and juniper woodland, coastal scrub, and valley and foothill grassland. Associated with open clay or sandy, sometimes +/- alkaline soils. Blooming period: April–June. Elevation: 200–1,800 meters.	**Potential to occur.** Nonnative grassland may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.
woodland woollythreads* *Monolopia gracilens*	--/--/CRPR 1B.2	Annual herb with yellow flowers and erect and spreading stems. Occurs in serpentine grassland, open chaparral, and oak woodland. Blooming period: February–July. Elevation: 100–1,200 meters.	**Potential to occur.** Nonnative grassland and blue oak woodlands may provide suitable habitat for this species. One CNDDB occurrence was recorded 2.4 miles southwest of the project in 1957. Species not observed in the project area during surveys conducted in the appropriate season.

Table 3.4-2. Sensitive Plant Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal / State / CRPR[2]**	**Habitat Associations[3]**	**Likelihood to Occur in the Project Area[4]**
shining navarretia* *Navarretia nigelliformis* ssp. *radians*	--/--/CRPR 1B.2	Annual herb with light grey-green herbage and a white hairy inflorescence. Occurs in vernal pools and clay depressions in cismontane woodland and valley and foothill grassland. Blooming period: April–July. Elevation: 76–1,000 meters.	**Potential to occur.** Seasonal wetlands and drainages may provide habitat for this species. The nearest CNDDB occurrences were recorded 0.2 mile west and 0.2 mile south-southwest in 2006 and 2014, respectively. Species not observed in the project area during surveys conducted in the appropriate season.
prostrate vernal pool navarretia *Navarretia prostrata*	--/--/CRPR 1B.1	Annual prostrate herb with a central head that occurs in alkaline floodplains in vernal pools. Blooming period: April–July. Elevation: <1,210 meters.	**Potential to occur.** Seasonal wetlands and drainages may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the project area during surveys conducted in the appropriate season.

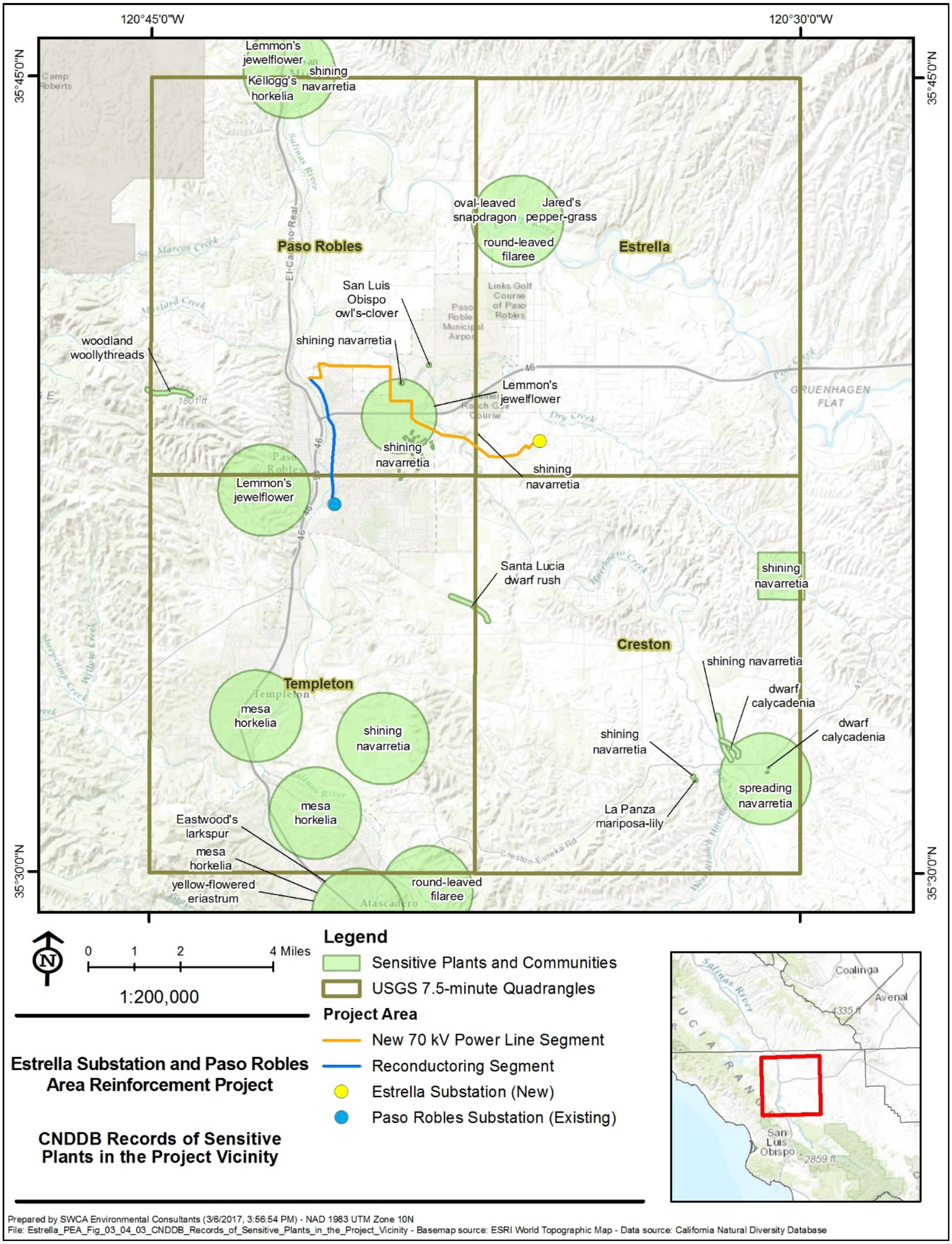
[1] List of plant species based on CNPS and CNDDB searches of USGS 7.5-minute quadrangles—Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, San Miguel.
[2] Listing status based on the *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2016b).
[3] Habitat associations and blooming periods based on the Jepson Online Interchange for California Floristics (Baldwin et al. 2012) and Calflora (2016).
[4] For the purpose of this PEA, species were considered to be near the project if records of occurrence were recorded within 5 miles of the project.
*CNDDB occurrences recorded within 5 miles of the project.

Status Codes
-- = No status
FE = Federally listed endangered
FT = Federally listed threatened
FC = Federal candidate for listing
SE = California state-listed endangered
ST = California state-listed threatened
SCE = California candidate endangered

California Rare Plant Ranking (CRPR):
1A = Plants presumed extirpated in California and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in California, but common elsewhere
2B = Plants rare, threatened, or endangered in California, but more common elsewhere

CRPR Threat Ranks:
0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)
0.3= Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat)

Figure 3.4-3. CNDDB Records of Sensitive Plants in the Project Vicinity



Special-Status Wildlife Species

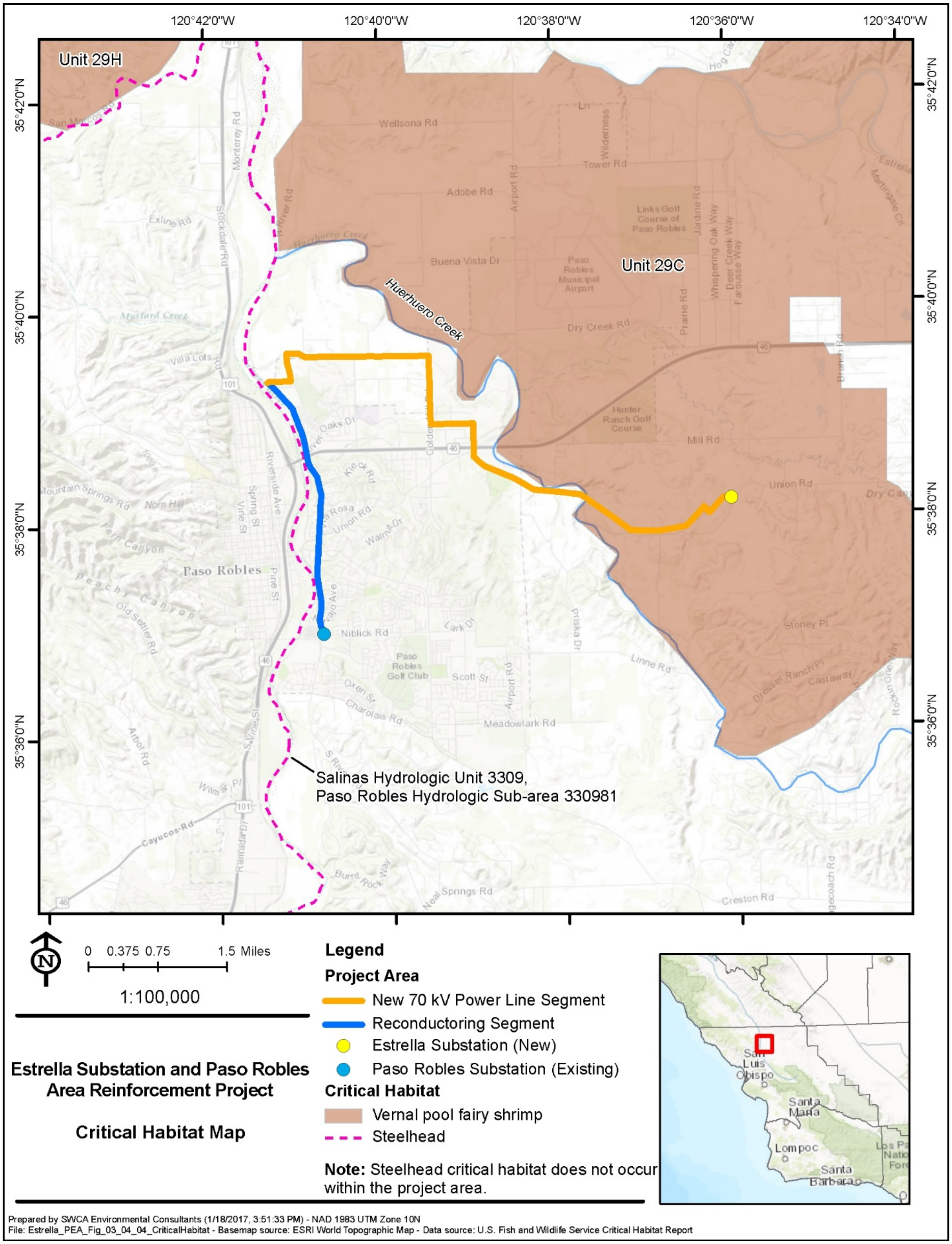
Two special-status animals—loggerhead shrike (CDFW SSC) and bald eagle (state endangered and CDFW fully protected)—were observed foraging and flying within the project area during surveys conducted in April and June 2016. A total of 40 special-status animals were identified from the database queries and evaluated for occurrences within the BSA. Due to site-specific conditions, it was determined that 2 species are present, 7 species are likely to occur and 9 species have potential to occur. Nine species were determined to be unlikely to occur and 13 species were determined to be absent from the project area based on the lack of suitable habitat or because the project area is located outside of the species range. Species that were determined to be unlikely to occur (California tiger salamander [*Ambystoma californiense*], western pond turtle [*Emys marmorata*], tricolored blackbird [*Agelaius tricolor*], Swainson's hawk [*Buteo swainsoni*], California condor [*Gymnogyps californianus*], yellow warbler [*Setophaga petechial*], least Bell's vireo [*Vireo bellii pusillus*], Townsend's big-eared bat [*Corynorhinus townsendii*], and Tulare grasshopper mouse [*Onychomys torridus tularensis*]) or absent from the BSA are not discussed further in this report. Special-status wildlife species of invertebrates, amphibians, reptiles, avian species, and mammals that were determined to be present, likely to occur, or have potential to occur in the project area are shown in Table 3.4-4, Special-Status Wildlife Species Potential Occurrence Within the Project Area, and are described in more detail in the following paragraphs.

Vernal Pool Fairy Shrimp

Federally designated vernal pool fairy shrimp critical habitat (Unit 29C, Central Coast Range Region) is located between Estrella Substation and where the new 70 kV power line segment bisects Huerhuero Creek (Figure 3.4-4, Critical Habitat Map). Vernal pool fairy shrimp are known to currently occupy this region within vernal pool habitats, which have patchy, disjunct occurrences within the critical habitat area. Unit 29C contains the following habitat constituents that are required to support this species: mound and inter-mound topography within a matrix of surrounding upland habitat, which provide for cyst dispersal and adequate pool hydroperiods, and vernal pool wetland features within a matrix of upland habitat, which provide for food, shelter, hatching, growth, and reproduction (USFWS 2006). Upland habitat and swales surrounding vernal pools are a critical component of maintaining hydrological and biological integrity of vernal pool fairy shrimp habitat. Indirect effects may occur if upland habitat or swales are destroyed or damaged due to loss of watershed, human intrusion, introduces species, and/or pollution. If the vernal pool is destroyed, then the vernal pool fairy shrimp habitat is considered to be directly affected (USFWS 1996).

Three CNDDB occurrences have been recorded within approximately 5 miles of the project between 2001 and 2005. The closest occurrences were recorded in 2005, approximately 0.4 mile west of the project site near the intersection of Niblick Road and Spring Street in small depressions and pools along a gravel access road, and in 2001, approximately 0.5 mile north of Estrella Substation and just south of SR-46 in a vernal pool. No habitat constituents required for the growth and survival of vernal pool fairy shrimp were observed in the BSA. Two preliminarily-mapped seasonal wetlands with adjacent upland habitat, however, are located within the project area, approximately 200 feet east of Buena Vista Drive.

Figure 3.4-4. Critical Habitat Map



*Steelhead critical habitat (Salinas Hydrologic Unit 3309, Paso Robles Hydrologic Sub-area 330981) does not occur within the project area.

No known branchiopod studies have been conducted in this potential habitat area. The project has been designed to avoid these features to prevent direct or indirect impacts to potential vernal pool fairy shrimp.

Because of the presence of suitable habitat and documented occurrences within 5 miles of the project area, vernal pool fairy shrimp are likely to occur in the project area. This species, however, is unlikely to occur in the construction work areas.

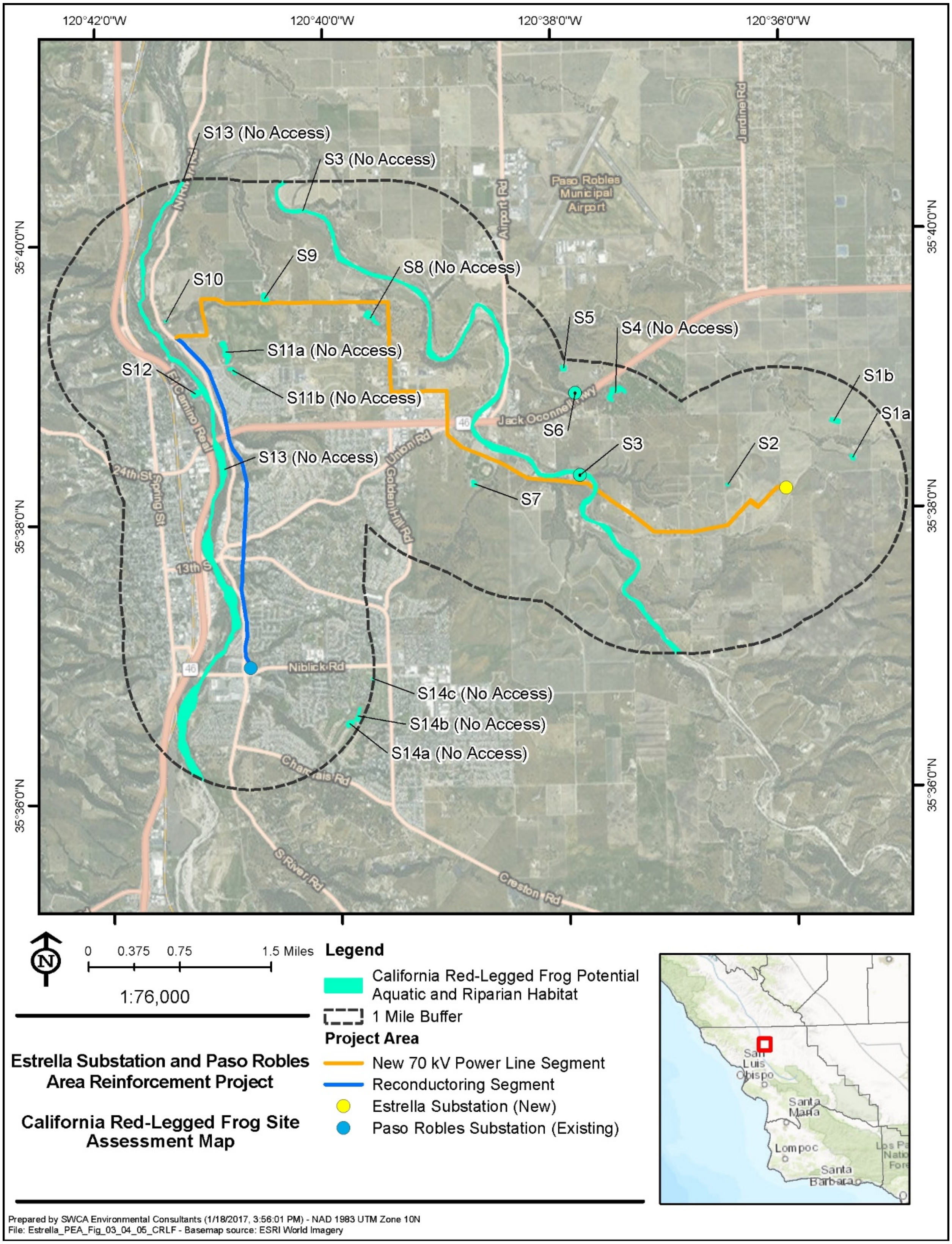
California Red-Legged Frog

A site assessment for California red-legged frog (*Rana draytonii*) was conducted in November 2016 and followed the "*Revised Guidance on Site Assessment and Field Surveys for California Red-legged Frogs* (Guidance)," issued by USFWS. A total of 18 sites were preliminarily identified in aerial photography and 10 sites were surveyed. Based on the presence of aquatic predators (i.e., American bullfrogs [*Lithobates catesbeianus*] and centrarchid fishes) and/or a lack of emergent vegetation, 9 of the 10 survey areas were determined to have either no potential or an unlikely potential to support a breeding population of California red-legged frogs. The tenth surveyed area (S6), located approximately 0.7 mile north of the project, has suitable aquatic breeding and adjacent upland habitat for California red-legged frogs. This drainage feature contains still to slow flowing water with dense stands of emergent vegetation and an overhanging canopy cover. However, the drainage features water source is run-off and overflow from Hunter Ranch Golf Course and therefore is subject to human influence (e.g., water flow/discharge control and pesticides). The nearest known breeding occurrence to this drainage feature is approximately 9 miles to the south, near the confluence of Salinas River and Graves Creek.

Seven additional ponds were observed within 1 mile of the project; however, access to these areas was prohibited. One of the locations, River Oaks Golf Course (S11a and S11b), was previously surveyed for California red-legged frog in 1999 and 2007; however, no individuals were observed. Several bullfrog adults and tadpoles were observed in the pond during the 2007 surveys and the studies concluded that California red-legged frogs are very unlikely to occur at River Oaks Golf Course (Althouse and Meade, Inc. 2013). The remaining un-surveyed aquatic features within 1 mile of the project consisted of one freshwater pond (S8) and four manmade ponds on two separate golf courses (S4, S14a, S14b, and S14c). The nearest recorded occurrences of California red-legged frog range from 6 to 9 miles south, along the Salinas River riparian corridor.

Based on the findings from the California red-legged frog site assessment and documented occurrences in the region, red-legged frogs have potential to occur in the project area. All aquatic features included in the California red-legged frog site assessment are shown below in Figure 3.4-5, California Red-Legged Frog Site Assessment Map. No California red-legged frog CNDDB occurrences have been recorded within 5 miles of the project.

Figure 3.4-5. California Red-Legged Frog Site Assessment Map



Western Spadefoot Toad

Four western spadefoot toad (*Spea hammondii*) CNDDB occurrences have been recorded between 2002 and 2006 within 5 miles of the project. The closest occurrence was recorded in 2002 about 1.3 miles south of the project near Huerhuero Creek. Although this species was not observed during the field surveys, seasonal wetlands, Huerhuero Creek, and other ephemeral drainages as well as nearby grasslands in the project area may provide suitable habitat for this species. Because of the presence of suitable aquatic and upland habitat and abundance of documented occurrences within 2 miles of the project area, western spadefoot toad is likely to occur.

Silvery Legless Lizard

One silvery legless lizard (*Anniella pulchra pulchra*) CNDDB occurrence was recorded 4.6 miles northwest of the project; however, this record dates back to 1994. Although this species was not observed within the project area, areas with leafy debris and loose soil, including the sandbars of Huerhuero Creek and other ephemeral drainages were observed within the project area. Suitable habitat is present and one old record of occurrence has been documented near the project area (within 5 miles); therefore, silvery legless lizard has potential to occur.

San Joaquin Whipsnake (Coachwhip)

No San Joaquin whipsnake (*Coluber flagellum ruddocki [=Masticophis flagellum ruddocki]*) CNDDB occurrences have been recorded within 5 miles of the project. An abundance of small mammal burrows was observed in grasslands and other dry open areas in the project area. Because of the presence of habitat, San Joaquin whipsnake has potential to occur in the project area.

Coast Horned Lizard

No coast horned lizard (*Phrynosoma blainvillii*) CNDDB occurrences have been recorded within 5 miles of the project; however, one coast horned lizard was observed by biologists in March 2016 while conducting surveys for the project. The individual was observed approximately 0.5 mile northeast of Estrella Substation in Dry Creek. Sandy creek beds in the project area, such as those observed in Huerhuero Creek and the unnamed drainage northwest of Golden Hill Road, may provide suitable habitat for this species. Because of the presence of habitat and documented occurrences within 1 mile of the project area, coast horned lizards are likely to occur.

Golden Eagle

One golden eagle (*Aquila chrysaetos*) CNDDB occurrence has been recorded approximately 0.2 mile north of the project in 2006 on the west side of Huerhuero Creek in a blue oak tree, between Golden Hill Road and Airport Road. According to the CNDDB record, a golden eagle pair has been seen nesting at this particular location for at least 15 years, and a second unoccupied nest was observed in the vicinity. In addition, multiple sightings were recorded within Paso Robles city limits between 1982 and 2015, with the closest observation to the project site being at Cuesta College North Campus just north of SR-46 (eBird 2016). Expansive spreads of grassland and oak woodlands within and around the project area may provide quality foraging and nesting habitat for this species. Because of the presence of nesting and foraging habitat and the documented nesting pair within 1 mile of the project area, golden eagles are likely to occur.

Burrowing Owl

No burrowing owl (*Athene cunicularia*) CNDDB occurrences have been recorded within 5 miles of the project. An abundance of small mammal burrows was observed in grasslands and other dry open areas in the project area, which may provide suitable habitat for this species. Because of the presence of habitat, burrowing owl has potential to occur in the project area.

Northern Harrier

No northern harrier (*Circus cyaneus*) CNDDB occurrences have been recorded within 5 miles of the project. Four sightings were recorded on eBird between 2013 and 2016 within 2 miles of the project, with the closest and most recent (2016) observation located at River Oaks Pond near Clubhouse Drive, approximately 1,000 feet east of the reconductoring segment (eBird 2016). Because of the presence of suitable nesting and foraging habitat and abundance of documented occurrences within 2 miles of the project area, northern harrier is likely to occur.

White-Tailed Kite

No white-tailed kite (*Elanus leucurus*) CNDDB occurrences have been recorded within 5 miles of the project. Nine sightings have been recorded on eBird between 1988 and 2006 within 1 mile of the project, with the closest and most recent observation located approximately 0.5 mile west of the reconductoring segment in 2006 (eBird 2016). Because of the presence of suitable nesting and foraging habitat and abundance of documented occurrences within 1 mile of the project area, white-tailed kite is likely to occur.

Bald Eagle

No bald eagle (*Haliaeetus leucocephalus*) CNDDB occurrences have been recorded within 5 miles of the project. Six bald eagle sightings were recorded on eBird within 1 mile of the project between 2006 and 2015 (eBird 2016). Biologists observed one juvenile bald eagle soaring above the project area near Golden Hill Road on June 15, 2016, while conducting surveys for the project. Suitable nesting and foraging habitat was observed within the project area. Although no bald eagle nests were observed during the 2016 field surveys, one juvenile eagle was observed; therefore, this species was determined to be present in the project area.

Loggerhead Shrike

Several loggerhead shrike (*Lanius ludovicianus*) were observed in the project area in grassland and agricultural areas in along Union Road. These individuals were observed perched on electrical power lines and foraging in the adjacent fields. Although no nesting loggerhead shrikes were observed in the project area, suitable nesting habitat for this species was observed. Based on the observations during the 2016 reconnaissance-level surveys, this species is present in the project area.

Purple Martin

No purple martin (*Progne subis*) CNDDB occurrences have been recorded within 5 miles of the project. Two individuals were observed approximately 2.7 miles north of the project near the intersection of Wellsona Road and Airport Road; however, this record dates back to 1991 (eBird 2016). Natural and urban landscapes in the project area may provide suitable nesting and foraging habitat for this species. Because of the presence of suitable habitat and proximity to documented occurrences, purple martin has potential to occur in the project area between April and August.

Pallid Bat

No pallid bat (*Antrozous pallidus*) CNDDB occurrences have been recorded within 5 miles of the project. Blue oak woodlands, grasslands, and urban portions of the project area may provide suitable roosting and foraging habitat for this species. Because of the presence of suitable roosting and foraging habitat, pallid bat has potential to occur in the project area.

Monterey Dusky-Footed Woodrat

No Monterey dusky-footed woodrat (*Neotoma macrotis luciana*) CNDDB occurrences have been recorded within 5 miles of the project. Biologists observed one midden approximately 0.5 mile north of Estrella Substation along Dry Creek in March 2016 while conducting surveys for the project. Riparian areas observed in the project area may provide suitable habitat for this species. Because of the presence of suitable habitat and midden observation within close proximity to the substation site, Monterey dusky-footed woodrat has potential to occur in the project area.

Salinas Pocket Mouse

One Salinas pocket mouse (*Perognathus inornatus psammophilus*) CNDDB occurrence has been recorded within 5 miles of the project; however, this record dates back to 1918. Blue oak woodland and grasslands with sandy and other friable soils in the project area may provide suitable habitat for this species. Because of the presence of suitable habitat, Salinas pocket mouse has potential to occur in the project area.

American Badger

One American badger (*Taxidea taxus*) CNDDB occurrence was recorded 3.2 miles southwest of the project in annual grassland habitat in 2003. Nonnative grasslands and blue oak woodlands observed throughout the project area may provide suitable habitat for this species. In addition, an abundance of prey species is present within and around the project area, such as California ground squirrels (*Otospermophilus beecheyi*) and other small rodent species. Because of the presence of suitable habitat and the abundance of documented occurrence within 5 miles of the project area, American badger is likely to occur. However, badger dens were not observed during surveys conducted in May and June 2016.

San Joaquin Kit Fox

Over 40 San Joaquin kit fox (*Vulpes macrotis mutica*) CNDDB occurrences were recorded in the CNDDB search between 1971 and 2012, most of which have been recorded at Camp Roberts more than 8 miles to the north of the project area. One kit fox is known to have moved from Camp Roberts to the Carrizo Plain, located 40 miles southeast of the project (California State University, Stanislaus 2016). The last recorded San Joaquin kit fox occurrence in Camp Roberts was in 2004. Natural connections between the Salinas River and Pajaro River watersheds, the Carrizo Plain Natural Area, and the San Joaquin Valley provide migration corridors for San Joaquin kit fox; however, the amount of movement between these areas is unknown. Riparian corridors observed within and around the project area, such as Huerhuero Creek, Salinas River, and Dry Creek, may provide a suitable movement corridor between these populations. Deer fences observed throughout the BSA may provide migration barriers for San Joaquin kit fox throughout the BSA, especially in agricultural areas; however, there are no known significant barriers to dispersal or migration between the documented populations of San Joaquin kit fox in the Shandon Valley and Camp Roberts. The nearest kit fox occurrence to the BSA was recorded about 0.35 mile south-southwest of the project in 1991, approximately 1 mile southeast of the intersection of Union Road and Golden Hill Road.

Suitable habitat for San Joaquin kit fox was observed in the project area. Grassland areas and blue oak woodlands observed within the project area contained an abundance of prey species (e.g., California ground squirrel, small mammals, ground-nesting birds, and insects) and have the potential to provide foraging habitat or natal or nonnatal den sites for San Joaquin kit fox. This species may also occur in riparian areas, such as ephemeral drainages or Huerhuero Creek, while migrating though the area. Orchards and vineyards, similar to those observed in the project area, have been reported to provide marginal habitat for this species due to their open structure and their underlying layer of herbaceous vegetation to support a prey base (Clark 2001; Warrick et. al 2007).

Focused surveys for San Joaquin kit fox conducted in June 2016 did not identify any San Joaquin kit fox or signs (tracks, scat, etc.) at the substation site. Twelve 4-inch burrows were identified and mapped in the Estrella Substation BSA (Figure 3.4-6, Estrella Substation San Joaquin Kit Fox Survey Results Map), many of which appeared to be inhabited by California ground squirrel and pocket gopher (*Thomomys bottae*). The abundance of these species provides a suitable prey base for San Joaquin kit fox; however, due to the abundance of human activity and disturbance associated with the vineyard (e.g., vehicular traffic, harvesting machinery, tilling, etc.), foraging habitat at the substation site is marginal. Focused San Joaquin kit fox surveys were not conducted along the new 70 kV power line segment or reconductoring segment because these project components consist of constructing overhead utility lines where permanent impacts to habitat are minimal.

Due to the presence of suitable habitat throughout the project area, including burrows of sufficient size (i.e., suitable as potential dens), documented occurrences within close proximity to the project site, and the presence of a prey base, there is potential for San Joaquin kit fox to occur within the project area.

Habitat Conservation Plans

Based on a review of the Ventura USFWS office's Habitat Conservation Plan (HCP) database (USFWS 2016d) and CDFW's California Regional Conservation Plans map (CDFW 2015), there are no adopted HCPs or Natural Community Conservation Plans (NCCPs) in the project vicinity.

Figure 3.4-6. Estrella Substation San Joaquin Kit Fox Survey Results Map

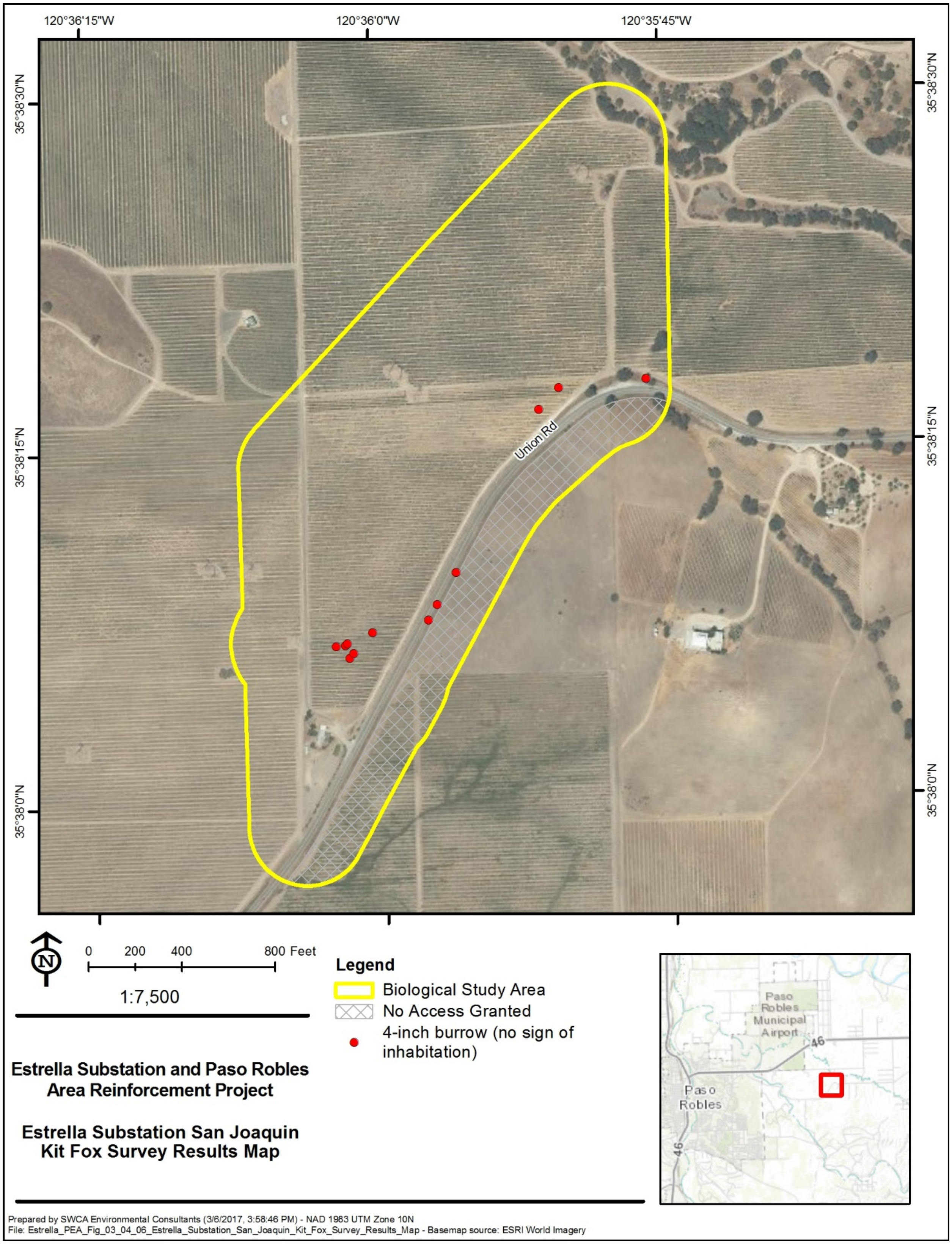


Table 3.4-3. Sensitive Wildlife Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal/ State/Other[2]**	**Habitat Associations**	**Likelihood of Occurrence[3]**
Invertebrates			
vernal pool fairy shrimp* *Branchinecta lynchi*	FT/--/--	Small translucent crustaceans that occur in vernal pool habitats, including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	**Likely to occur.** Suitable habitat observed along the new 70 kV power line segment. Three recent CNDDB occurrences (2001, 2001, and 2005) were recorded within 2 miles of the project. The eastern end of the project is located within federally-designated vernal pool fairy shrimp critical habitat (Unit 29C, Central Coast Range Region).
Amphibians			
California red-legged frog *Rana draytonii*	FT/--/SSC	A medium-sized frog with prominent dorsolateral folds extending along the side of the body. Occurs in semi-permanent or permanent water at least 0.5 meter deep, bordered by emergent or riparian vegetation, and upland grassland, forest, or scrub habitats for refugia and dispersal.	**Potential to occur.** Salinas River, located between 150 to 1,300 feet west of the reconductoring segment, provides suitable breeding habitat for this species. One additional unnamed drainage channel located 0.7 mile north of the project may also provide suitable aquatic breeding habitat. No CNDDB occurrences have been recorded within 5 miles of the project.
western spadefoot toad* *Spea hammondii*	--/--/SSC	A small toad with warty skin and vertical pupils. Occurs in grasslands and valley foothill woodlands, with vernal pools that are used for breeding. Outside of breeding season, they burrow in upland areas.	**Likely to occur.** Suitable breeding and upland habitat observed in the project area. Four CNDDB occurrences were recorded between 2002 and 2006 within 4 miles of the project.

Table 3.4-3. Sensitive Wildlife Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal/ State/Other[2]**	**Habitat Associations**	**Likelihood of Occurrence[3]**
Reptiles			
silvery legless lizard* *Anniella pulchra pulchra*	--/--/SSC	A slender lizard without legs that occurs in dune scrub, coastal scrub, chaparral, pine-oak woodland, oak woodland, and riparian woodland. Requires loose soil for burrowing, moisture, warmth, and plant cover. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.	**Potential to occur.** Sandy soils, such as those observed in Huerhuero Creek, other ephemeral drainages, and blue oak woodlands were observed in the project area. One CNDDB occurrence was recorded within 5 miles of project; however, this record dates back to 1994.
San Joaquin whipsnake *Coluber flagellum ruddocki (Masticophis flagellum ruddocki)*	--/--/SSC	A tan, olive brown, or yellowish brown slender, fast-moving snake that occurs in chaparral and scrub habitats. Also known to use adjacent grassland, oak savanna, and woodland habitats; will inhabit abundant rodent burrows.	**Potential to occur.** Grasslands and blue oak woodlands observed in the project area may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project.
coast horned lizard *Phrynosoma blainvillii*	--/--/SSC	A wide oval-shaped lizard with pointed fringe scales along the side of their bodies. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of native ants and other insects.	**Likely to occur.** One coast horned lizard was observed by biologists in March 2016 approximately 0.5 mile northeast of Estrella Substation in Dry Creek. Sandy creek beds in the project area may provide suitable habitat for this species.
Birds			
golden eagle *Aquila chrysaetos*	--/--/FP; WL; MBTA; BGEPA	Large dark brown eagle with a golden sheen on the back of the head and neck. Broad expanses of open country are required for foraging while nesting primarily occurs in rugged mountainous areas with large trees or on cliffs.	**Likely to occur.** Suitable nesting and foraging habitat observed in the project area. CNDDB reports an active nest 0.2 mile east of the project area near Golden Hill Road in 2006.

Table 3.4-3. Sensitive Wildlife Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal/ State/Other[2]**	**Habitat Associations**	**Likelihood of Occurrence[3]**
burrowing owl *Athene cunicularia*	--/--/SSC; MBTA	Long legged owl with bright yellow eyes that occurs in open, dry, annual, or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Uses rodent or other burrows for roosting and nesting cover.	**Potential to occur.** Grasslands, open blue oak woodlands, and agricultural areas observed throughout the project area may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project.
northern harrier *Circus cyaneus*	--/--/SSC; MBTA	A slender, long tailed hawk with an owl-like face. Frequents meadows, grasslands, open rangeland, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas.	**Likely to occur.** Suitable foraging habitat was observed in the project area. Four sightings have been recorded between 2013 and 2016 within 2 miles of the project.
white-tailed kite *Elanus leucurus*	--/--/FP; MBTA	A medium-sized grey hawk with long, pointed wings. Yearlong resident in coastal and valley lowlands; rarely away from agricultural areas. Inhabits herbaceous and open staged of moist habitats mostly in cismontane areas	**Likely to occur.** Suitable nesting and foraging habitat was observed in the project area. Nine sightings have been recorded between 1988 and 2006 within 2 miles of the project.
bald eagle *Haliaeetus leucocephalus*	DL/SE/FP; MBTA; BGEPA	A dark brown eagle with a white head and yellow legs. Roosts communally in winter in dense, sheltered, remote conifer stands. Nests in large, old growth, or dominant live tree close to lakes and large rivers.	**Present.** Biologists observed one juvenile bald eagle soaring above the project near Golden Hill Road on June 2016. In addition, six bald eagle sightings were recorded within the vicinity of the project between 2006 and 2015 (eBird 2016). Suitable nesting and foraging habitat for this species was observed in the project area.
loggerhead shrike *Lanius ludovicianus*	--/--/SSC; MBTA	A black, white and grey passerine that generally occurs in open country with scattered shrubs and trees. Sit on low perches to scan for prey (rodents, lizards, birds, and insects).	**Present.** Several loggerhead shrike were observed in grassland and agricultural areas in the project area along Union Road. These individuals were observed perched on electrical power lines and foraging in the adjacent fields. Suitable nesting and foraging habitat was observed in the project area.

Table 3.4-3. Sensitive Wildlife Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal/ State/Other[2]**	**Habitat Associations**	**Likelihood of Occurrence[3]**
purple martin *Progne subis*	--/--/SSC; MBTA	A dark bluish-purple swallow which is an uncommon to rare, local summer resident that occurs in a variety of wooded, low-elevation habitats. Forages over riparian areas, forest and woodland, and found in a variety of open habitats in migration.	**Potential to occur.** Suitable nesting and foraging habitat was observed in the project area. Two individuals were observed 2.7 miles north of the project in 1991 (eBird 2016).
Mammals			
pallid bat *Antrozous pallidus*	--/--/SSC	A large bat with long forward pointing ears that occur in desert areas, moister oak woodlands, and redwood forests of coastal regions. At lower elevations, highly associated with oak woodlands and oak savanna.	**Potential to occur.** Potential day and night roost sites were observed within the project area. No CNDDB occurrences have been recorded within 5 miles of the project.
Monterey dusky-footed woodrat *Neotoma macrotis luciana*	--/--/SSC	A brown rat with a furred tail that occurs in dense chaparral, coastal sage-scrub, pinyon-juniper, oak and riparian woodlands, and mixed coniferous forest habitat with well-developed understory in which to make its nest.	**Potential to occur.** Dense blue oak woodlands observed along riparian corridors within the project area may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Biologists observed one woodrat midden approximately 0.5 mile northwest of Estrella Substation in March 2016. No middens were observed in the project area.
Salinas pocket mouse* *Perognathus inornatus psammophilus*	--/--/SSC	A small rodent with a buff to pinkish back with blackish hairs and a white underside. Habitat relations are not well known but literature reported habitat for *P. inornatus* on the Carrizo Plain (previously considered to include *psammophilus*) as sandy loam flats dominated by herbs and grasses.	**Potential to occur.** Suitable habitat observed within and adjacent to Huerhuero Creek. The nearest CNDDB occurrence was recorded 3.2 miles north of the project; however, this record dates back to 1918.

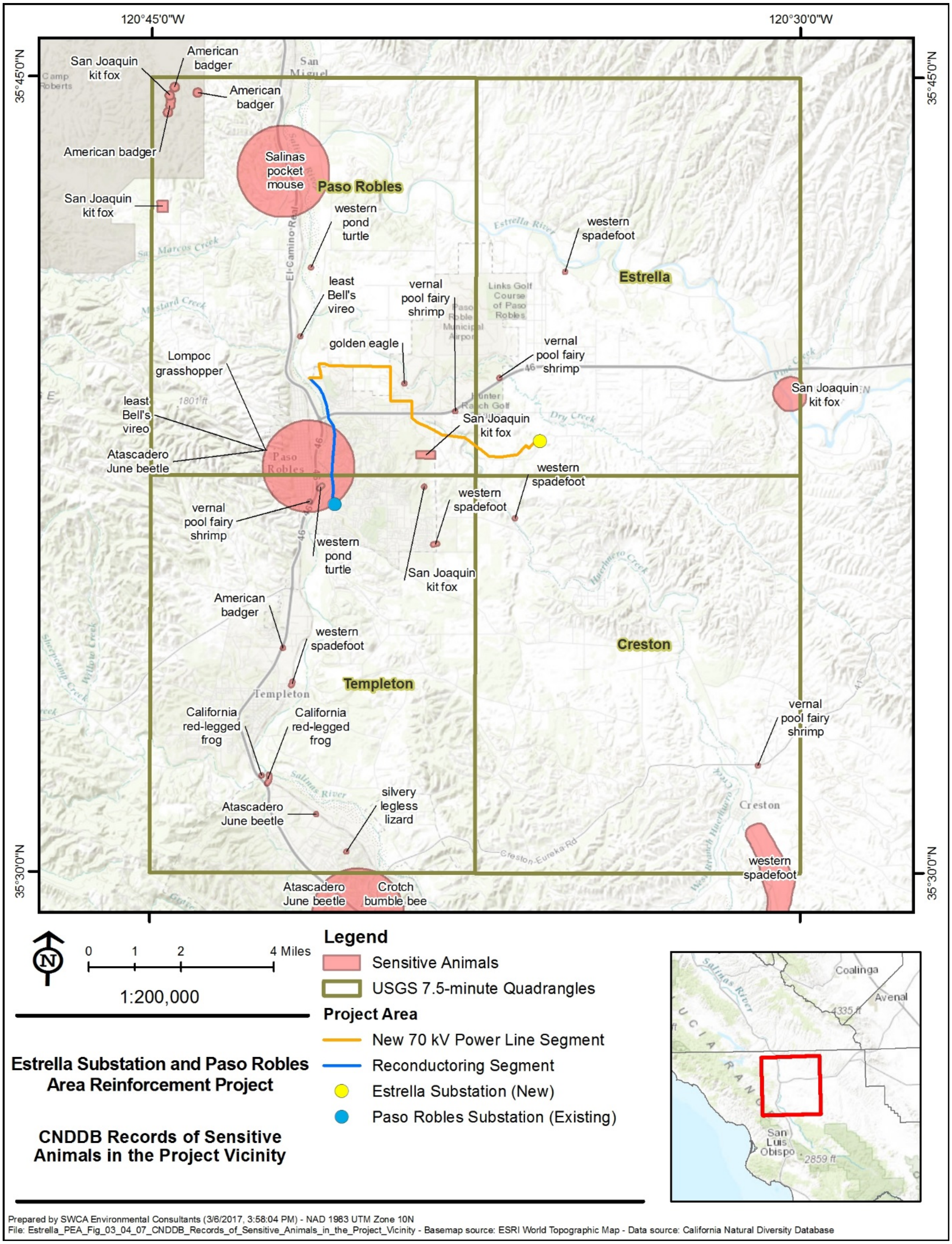
Table 3.4-3. Sensitive Wildlife Species Potential for Occurrence within the Project Area[1]

Common Name *Scientific Name*	**Status Federal/ State/Other[2]**	**Habitat Associations**	**Likelihood of Occurrence[3]**
American badger* *Taxidea taxus*	--/--/SSC	A heavy bodied, short-legged, grayish mammal that has a white medial stripe from the nose over the top of the head and down the back. Open grassland, chaparral, and oak woodland with friable soils. Needs sufficient food and open, uncultivated ground.	**Likely to occur.** Grasslands and blue oak woodlands observed within the project area may provide suitable habitat for this species. One CNDDB occurrence has been recorded approximately 3 miles southwest of the project in 2003.
San Joaquin kit fox* *Vulpes macrotis mutica*	FE/ST/--	A small, tan to yellowish-grey fox with large ears and a long bushy tail. Open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance represent suitable habitats for kit foxes. Some agricultural areas may support these foxes.	**Potential to occur.** Suitable habitat observed within the project area. The nearest CNDDB occurrence was recorded 0.3 mile southwest of the project in 1991.

[1]List of animal species based on CNDDB searches of USGS 7.5-minute quadrangles – Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, San Miguel.
[2]Listing status based on the *Special Animals List* (CDFW 2016c).
[3] For the purpose of this PEA, species were considered to be near the project if records of occurrence were recorded within 5 miles of the project.
[4] The California tiger salamander Santa Barbara County and Sonoma County Distinct Vertebrate Population (DPS) is listed as Federally Endangered. The Central Valley Population is designated as Threatened.
*CNDDB occurrences recorded within 5 miles of the project.

Status Codes
-- = No Status
FE = Federally Listed Endangered
FT = Federally Listed Threatened
FC = Federal Candidate for Listing
SE = California State-Listed Endangered
ST = California State-Listed Threatened
SCE = California Candidate Endangered
DL = Delisted
FP = CDFW Fully Protected
SSC = CDFW Species of Special Concern

Figure 3.4-7. CNDDB Records of Sensitive Animals in the Project Vicinity



3.4.4 Applicant-Proposed Measures and Potential Impacts

3.4.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project-related impacts on biological resources were evaluated for each of the criteria listed in Table 3.4-1, as discussed in Section 3.4.4.3.

3.4.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs:

Table 3.4-4. Applicant Proposed Measures for Biological Resources

APM No.	Description
	BIOLOGICAL RESOURCES
APM BIO-1	**<u>Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas.</u>** Biologists will conduct pre-construction survey(s) for special-status species and sensitive resource areas immediately prior to construction activities within suitable aquatic and upland habitat for special-status species. If a special-status species is encountered on the project site, the project proponents will be contacted immediately to determine the appropriate course of action. For federally or state listed species, the project proponents will contact the appropriate resource agency (USFWS and/or CDFW), as required.
APM BIO-2	**<u>Avoid Impacts on Nesting Birds</u>.** If work is scheduled during the nesting season (February 1 through August 31), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in the project proponent's *Nesting Birds: Specific Buffers for PG&E Activities*, and will occur within 15 days prior to the start of work activities at designated construction areas, staging areas, and landing zones to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and/or by helicopter and will support phased construction, with surveys scheduled to be repeated if construction lapses in a work area for 15 days between March and July. Access for ground surveys will be subject to property access permission. Helicopter flight restrictions for nest detection surveys may be in effect for densely populated residential areas, and will include observance of appropriate established buffers and avoidance of hovering in the vicinity of active nest sites. If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in the project proponent's *Nesting Birds: Specific Buffers for PG&E Activities*. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in *Nesting Birds: Specific Buffers for PG&E Activities*. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as

Table 3.4-4. Applicant Proposed Measures for Biological Resources

APM No.	Description
	confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. Per the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order cessation of nearby project activities if nesting pairs exhibit signs of disturbance. All references in this APM to qualified wildlife biologists refer to qualified biologists with a bachelor's degree or above in a biological science field and demonstrated field expertise in ornithology, in particular, nesting behavior.
APM BIO-3	**Biological Monitoring.** Biologists will monitor initial ground-disturbing activities in and adjacent to sensitive habitat areas to ensure compliance with Best Management Practices and APMs, unless the area has been protected by barrier fencing to protect sensitive biological resources and has been cleared by the biologists. The monitor will have authority to stop or redirect work if construction activities are likely to affect sensitive biological resources. If a listed wildlife species is encountered during construction, project activities will cease in the area where the animal is found until the qualified biologist determines that the animal has moved out of harm's way, or with prior authorization from USFWS and/or CDFW if required, relocates the animal out of harm's way, and/or takes other appropriate steps to protect the animal. Work may resume once the qualified biologist has determined that construction activities will not harm any listed wildlife species. The project proponents will be responsible for any necessary reporting to USFWS and/or CDFW.
APM BIO-4	**Special-Status Species Protection.** All trenches/excavations in excess of 2 feet deep will have a sloped escape ramp or be covered at the end of the day. All trenches and excavations will be inspected for wildlife at the beginning of the workday and prior to backfilling. In addition, open-ended project-related pipes 4 inches or greater in diameter will be capped if left overnight or inspected for wildlife prior to being moved. If a special-status species is discovered in a trench, excavation, or pipe, the animal will be left undisturbed, and the pipe will not be moved until the special-status species has left the area on its own accord. In the event that any special-status species is trapped and unable to leave on its own accord, a permitted biologist, defined as a qualified biologist that holds the appropriate federal and/or state permits, will recover and relocate the special-status species. In addition, all food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed trash containers or kept in closed vehicles. Trash containers will be removed from the project area on a regular basis.
APM BIO-5	**Dead or Injured Special-Status Wildlife.** If any dead or injured special-status wildlife or birds protected by the Migratory Bird Treaty Act are discovered at the project during construction, work will stop in the immediate vicinity. The project proponents will notify the on-call biologist and the appropriate resource agency (USFWS and/or CDFW) before construction is allowed to resume.

3.4.4.3 Potential Impacts

Potential direct and indirect project impacts on biological resources were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential temporary and permanent impacts that may occur during the construction phase and operation and maintenance phase. As discussed below, no significant impacts will occur.

As described in Chapter 2.0, Project Description, the project generally includes:

- Construction and operation of the 230/70 kV Estrella Substation, including the 230 kV interconnection;
- Construction of approximately 7 miles of the new 70 kV power line segment; and,
- Reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The route for the future distribution feeders is uncertain and the feeders are expected to follow existing roadways and previously disturbed areas. No significant impacts to biological resources are anticipated at this time as a result of this future project.

Bio-a: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (now CDFW) or USFWS? *(Less than Significant)*

Construction

Estrella Substation

Special-Status Plants

The existing conditions at the substation site include a cultivated vineyard with isolated patches of ruderal vegetation. Vineyards are generally disked and mowed to decrease the height of cover vegetation along the vineyard rows. No special-status plants have been observed within the Estrella Substation work areas during surveys conducted between March and May 2016. The field surveys were floristic in nature, identifying each plant to the taxonomic level. Surveys were conducted following a season of good rainfall (approximately 88% of the average) (City of El Paso de Robles 2016) providing optimal conditions for the detection of rare plants. Surveys were also conducted over a range of bloom periods to capture the flowering period of all special-status plants with a likelihood for occurrence in the project area. Special-status plants are unlikely to occur near the substation site; therefore, impacts to special-status plants from construction of Estrella Substation will be less than significant.

An environmental awareness training (APM GEN-1, WEAP Training Program) will be provided to all on-site personnel prior to the start of construction informing them of appropriate avoidance and minimization measures in the event any special-status plants are observed prior to or during construction. Implementation of APM GEN-1 will further reduce already less-than-significant impacts.

Special-Status Wildlife

As mentioned above, the substation site is currently dominated by cultivated vineyards. Agricultural areas typically provide low habitat value for sensitive plants and wildlife species. Deer fences were observed throughout the vineyards in the BSA, which provide a migration barrier to San Joaquin kit fox and other mammals. No active San Joaquin kit fox dens or kit fox sign were observed in the project area. The disturbed nature and the presence of human and vehicular traffic associated with the vineyard make it unlikely that San Joaquin kit fox would inhabit and use this area for extended periods of time. However, since the substation site supports a potential prey base, the site may provide marginal foraging value for kit fox.

The loss of approximately 15 acres of vineyards is insignificant compared to the abundance of quality foraging and breeding habitat in natural, open space areas immediately southeast of Estrella Substation which likely provides a mammalian prey base. Furthermore, construction of Estrella Substation does not restrict habitat used as migration corridors between the Salinas River and Pajaro River watersheds, the Carrizo Plain Natural Area, or the San Joaquin Valley. Kit fox presence is not considered likely and the habitat is considered marginal value; therefore, impacts to San Joaquin kit fox will be less than significant.

In the event that an individual accustomed to foraging on-site is present during construction activities, injury or mortality of this species may occur resulting from mechanical crushing by construction equipment, consumption of litter, and/or entrapment within excavations and/or open-ended pipes. However, such occurrences will be avoided with the implementation of APMs GEN-1 (WEAP Training Program), BIO-1 (Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas), BIO-3 (Biological Monitoring), and BIO-4 (Special-Status Species Protection). Implementation of these APMs will further reduce already less-than-significant impacts.

Indirect effects during construction include fugitive dust generation and ground disturbance activities, which may affect the species' daily activity patterns. These indirect effects will be minimized by implementation of the required Storm Water Pollution Prevention Plan (SWPPP), which will minimize fugitive dust and erosion that may affect nearby habitat quality. Since kit fox presence is not considered likely and habitat at the substation site is marginal, potential direct or indirect impacts will not substantially reduce kit fox populations or cause the species to drop below self-sustaining levels. Implementation of APMs GEN-1, BIO-1, BIO-3, and BIO-4 will reduce already less-than-significant impacts.

Pallid bat has the potential to occur in substation construction work areas while foraging. Oak trees and buildings observed in the vicinity of the substation site may provide suitable day or night roosts for this species; however, these areas are located more than 250 feet from Estrella Substation. Furthermore, trees used for roosting bats are typically located in mature forest stands (Dudek and ICF International 2012). Oak trees within close proximity to the substation site are sparse and scattered making potential roosting habitat marginal. Therefore, impacts to pallid bat will be less than significant.

Special-Status Birds

The project substation site occurs within a region that is known to support a variety of state and federally protected bird species. One special-status bird—loggerhead shrike—is likely to occur in the substation site area, while three additional birds—golden eagle, burrowing owl and white-tailed kite—have potential to forage within or adjacent to the substation site. However, the substation site is currently subject to disking, mowing, and other routine agricultural-related and human disturbances. As a result, these species are unlikely to use the substation site for nesting. Substation construction will permanently impact approximately 15 acres of vineyards. This amount is not considered substantial given the abundance of foraging habitat in the project area. Therefore, impacts to special-status birds will be less than significant.

Construction of the substation may result in avian mortality or injury, nest destruction, or abandonment of active nests should vegetation clearing and ground disturbance activities occur during the breeding and nesting season. Pre-construction nesting bird surveys will be conducted to ensure impacts remain less than significant and the project will avoid special-status species during construction (APM BIO-2, Nesting Bird Surveys). Additionally, the covering of pipes or conduit before installation per APM BIO-4 (Special-Status Species Protection) will preclude avian nesting activities and entrapment during construction. APM BIO-5 (Dead or Injured Special-Status Wildlife) will be implemented in the event that a special-status bird is harmed as a result of project activities. Implementation of APMs BIO-2, BIO-4, and BIO-5 will further reduce already less-than-significant impacts.

Indirect impacts to avian species include the presence of construction activities including increased vehicular and equipment traffic and human presence, construction equipment operations, disruptive noise from heavy equipment and other construction activities, and ground disturbance, which may affect and change the species' daily activity patterns and use of areas in the project vicinity. Implementation of APM GEN-1 (WEAP Training Program) and APM BIO-1 (Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas) will further reduce already less-than-significant impacts.

Power Line Route

Special-Status Plants

Botanical surveys, floristic in nature, were conducted over a range of bloom periods to capture the flowering period of all special-status plants with a likelihood for occurrence in the project area. No special-status plants have been observed within the power line route project area during surveys conducted between April and June 2016. Therefore, impacts to special-status plants from construction of the power line route will be less than significant.

Construction impacts to special-status plants can occur as a result of vegetation trimming or removal, vehicular travel within project areas (including access routes), and staging of equipment and/or vehicles and trucks in work areas. On-site construction personnel will receive environmental awareness training on their responsibilities before work begins (APM GEN-1, WEAP Training Program) and pre-construction surveys will be conducted (APM BIO-1, Conduct Pre-construction Survey(s) for Special-Status Species and Sensitive Resource Areas). In the event special-status plants are observed during pre-construction surveys, occurrences will be flagged for avoidance. If avoidance is not feasible, restoration of the seed bank will be conducted outside of the project area. Impacts to special-status plants will also be minimized by worker awareness training to confine activities to within the established project limits and using only existing roads to the extent practical (APM GEN-1). Implementation of these APMs will further reduce already less-than-significant impacts.

Special-status plant species can also be indirectly affected during construction by soil compaction, fugitive dust, erosion effects, introduction of nonnative invasive plant species from project vehicles and equipment, and an increase in ground surface disturbance. The project SWPPP will require measures to establish erosion control measures during and after construction, and stormwater control measures during construction. Required construction best management practices (BMPs) will include dust suppression using water or soil binders and vehicle cleaning to prevent the spread of nonnative invasive plant species. Implementation of the SWPPP and Construction General Permit BMPs will further reduce already less-than-significant impacts.

Special-Status Wildlife

Vernal pool fairy shrimp can occur in the seasonal wetlands that were preliminarily mapped along the new 70 kV power line segment, approximately 200 feet east of Buena Vista Drive. The new power line spans over the seasonal wetlands and PG&E has designed the project and construction work areas to avoid direct and indirect impacts on vernal pool species and habitats. The nearest structure is located approximately 60 feet west of the wetland features; however, an existing roadway bisects the landscape disrupting the hydrological and biological integrity of any suitable vernal pool fairy shrimp habitat. The power line structure to the east is approximately 175 feet away from the preliminarily mapped wetland features. Based on the existing topography and habitat modifications as well as the distance from the construction work areas, the project will not interfere with the hydrological or biological integrity of suitable fairy shrimp habitat. Because the project has been designed to avoid vernal pool fairy shrimp and their habitat, impacts will be less than significant.

Implementation of a worker environmental training program (APM GEN-1, WEAP Training Program) and requiring an on-site biological monitor near sensitive habitat areas (APM BIO-3, Biological Monitoring) to increase worker awareness of site sensitivity will further ensure impacts remain less than significant.

Indirect effects to vernal pool fairy shrimp and their habitat may occur from fugitive dust, fuel spills, or storm water runoff and sediment. Such impacts will be reduced by the project SWPPP that will require erosion control measures to manage storm water, and by construction BMPs, which will ensure construction vehicles do not track soils and other materials from the construction site. Impacts will be less-than-significant. Hazardous substance control and emergency response procedures to prevent fuel spills will be implemented per APM HAZ-1 (Hazardous Substance Control and Emergency Response). Implementation of and APM HAZ-1 will further reduce already less-than-significant impacts.

Western spadefoot toad may occur in seasonal wetlands or other aquatic resources, as well as nearby grasslands along the power line route. Similarly, California red-legged frog have potential to occur in aquatic features and adjacent upland habitat along the power line route.

However, the project has been designed and construction work areas have been selected to avoid all suitable aquatic breeding or aquatic non-breeding habitat for these species. Therefore, impacts to western spadefoot and California red-legged frog from construction of the power line route will be less than significant.

Power line construction-related impacts to western spadefoot and California red-legged frog that migrate into project work areas from adjacent upland areas may include mortality or injury due to mechanical crushing. However, these direct impacts will be avoided and minimized by training all on-site personnel on these species and their habitats (APM GEN-1), by providing a biological monitor during ground-disturbing construction activities within and near sensitive habitat areas (APM BIO-3), and by conducting pre-construction surveys for these species prior to vegetation removal, grubbing, and ground-disturbing activities (APM BIO-1, Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas). Training all on-site personnel to reduce vehicle speeds on project access roads to allow animals time to escape harm from moving vehicles and confining access routes and construction work areas (APM GEN-1) will further minimize direct impacts to these species. Entrapment of wildlife within excavations may occur, which can be avoided with the implementation of APM BIO-4 (Special-Status Species Protection). Implementation of APMs GEN-1, BIO-1, BIO-3, and BIO-4 will further reduce already less-than-significant impacts.

Indirect impacts to western spadefoot toad and California red-legged frog may occur from increased vehicular and equipment traffic, increased human presence, construction equipment operations, disruptive noise from heavy equipment and other construction activities, and ground disturbance work that generates fugitive dust and erosion. Such activities may affect and change the species' daily activity patterns and use of areas in the project vicinity. However, such impacts will be temporary and therefore will not have a significant adverse effect on these species. Further, the project proponents will implement an environmental awareness training program (APM GEN-1) to ensure indirect impacts to these species remains less than significant. Implementation of APMs GEN-1, BIO-1, BIO-3, and BIO-4 will further reduce already less-than-significant impacts.

Sandy and other loose soils, including leaf litter, along the power line route, such as those along Huerhuero Creek and other ephemeral drainage channels, are likely to support coast horned lizard and have the potential to support silvery legless lizard. However, the project has been designed to avoid Huerhuero Creek and all other ephemeral drainage channels that bisect the project area. Therefore, impacts to coast horned lizard and silvery legless lizard from construction of the power line route will be less than significant.

Permanent impacts to coast horned lizard and silvery legless lizard that occur outside of riparian areas along the power line route may be directly injured or killed by project vehicles or construction equipment or during vegetation removal and clearing activities. Such impacts could be potentially significant. However, pre-construction surveys (APM BIO-1) prior to and monitoring during vegetation clearing, grubbing, and ground-disturbing activities (APM BIO-3) will prevent or reduce impacts to this species. Training all on-site personnel on route and work area limitations and reducing vehicle speeds (APM GEN-1) will prevent or reduce injury or mortality from construction vehicles and equipment. Vegetation removal could provide increased opportunity for predation of these species, which will be minimized by the revegetation measures in the SWPPP to establish permanent erosion control and vegetative cover in areas disturbed by construction. Temporary impacts may also occur from vehicular and equipment traffic, disruptive noise from heavy equipment and other construction activities, increased human presence, and habitat destruction or removal during vegetation removal or trimming, all of which can be minimized with the SWPPP and implementation of APMs GEN-1, BIO-1, and BIO-3. Considering the project has been designed to avoid habitat where these species typically occur, habitat loss associated with power line construction will not have substantial adverse effects on these species. Implementation of APMs GEN-1, BIO-1, and BIO-3 will reduce impacts to coast horned lizard, silvery legless lizard, and their habitats to less than significant.

Nonnative grasslands and blue oak woodlands along the power line route are likely to support American badger and also have the potential to support San Joaquin whipsnake, Salinas pocket mouse, and San Joaquin kit fox. These four species are known to take refuge in underground burrows and dens in grassland and blue oak woodland areas and have the potential to be impacted by project construction activities. Permanent direct and indirect impacts to these species and their habitat may include mortality due to construction traffic, vegetation removal and clearing activities, and grading and excavation activities. Such impacts could be potentially significant. Construction of the power line route will impact these species' habitat through permanent loss of up to 0.5 acre of suitable blue oak woodland and nonnative grassland habitat. However, this is an insignificant amount of habitat compared to overall countywide distribution of these vegetation communities.

Minimization of vegetation removal and revegetation measures required by the SWPPP in order to establish permanent erosion control and vegetative cover in areas disturbed by construction will minimize permanent loss of suitable habitat. Impacts to these species and their habitat will be avoided and further minimized by training all on-site personnel on access route and work area limitations and speed limits (APM GEN-1), pre-construction biological surveys (APM BIO-1), biological monitoring and inspections (APM BIO-3), and implementation of APM BIO-4 (Special-Status Species Protection). Temporary impacts to these species and their habitat may include harm or injury during construction resulting from vehicular travel, litter, feeding wildlife, domestic pets, and/or entrapment of wildlife within excavations, all of which can be avoided with the implementation of APMs GEN-1 and BIO-4. Fugitive dust could impact habitat quality; however, this will be minimized through implementation of the SWPPP. With implementation of APMs GEN-1, BIO-1, BIO-3, and BIO-4, impacts to American badger, San Joaquin whipsnake, Salinas pocket mouse, and San Joaquin kit fox and their habitats will be less than significant.

Pallid bat has the potential to occur along the power line route while roosting or foraging. Oak trees and buildings observed along the power line route may provide suitable day or night roosts for this species. The project has the potential to permanently impact pallid bat roosting habitat by removing up to three oak trees along the new 70 kV power line segment. However, the potential loss of three oak trees is insignificant compared to the approximate 1,600 oak trees that were observed within the project's BSA. Therefore, impacts on pallid bats from construction of the power line route will be less than significant.

Potential impacts to bats will be avoided and further minimized through the implementation of a worker training program and monitoring program (APM GEN-1), biological monitoring (APM BIO-3), and pre-construction surveys prior to vegetation trimming or removal (APM BIO-1). Implementation of these APMs will further reduce already less-than-significant impacts.

Monterey dusky-footed woodrat has the potential to occur along riparian corridors in the project area where oak trees were observed growing in dense stands. Riparian areas and other woodlands in the project area generally lacked dense brushy understories that are typically used to build nests (middens), which minimizes the potential for this species to occur in abundance in the project area. Further, the project has been designed and construction work areas have been selected to avoid riparian areas. Therefore, impacts on Monterey dusky-footed woodrat will be less than significant.

Temporary impacts to the Monterey dusky-footed woodrat and its habitat may include harm or injury during construction resulting from vehicular travel, litter, feeding wildlife, domestic pets, ground disturbance, and/or fugitive dust, all of which can be avoided with the implementation of APM GEN-1 (WEAP Training Program), APM BIO-4 (Special-Status Species Protection), and the SWPPP. Potential impacts could also occur during vegetation trimming or removal; however, these impacts will be reduced by conducting pre-construction surveys for these species prior to vegetation removal, grubbing, and ground-disturbing activities (APM BIO-1), and by clearing the minimum amount of vegetation necessary to construct the power line route. Implementation of these APMs will further reduce already less-than-significant impacts.

Special-Status Birds

Similar to Estrella Substation, the power line route occurs within a region that is known to support a variety of state and federally protected bird species. Two special-status birds—loggerhead shrike and bald eagle—were observed foraging and flying along the power line route during surveys conducted in April and June 2016. Three special-status birds—golden eagle, northern harrier, and white-tailed kite—are likely to occur in the project area while nesting or foraging. Two special-status birds—burrowing owl and purple martin—have potential to occur in the project area. Construction of the power line route has the potential to permanently impact special-status bird species through loss of foraging and/or nesting habitat. However, construction activities are of a short duration and the loss of foraging and/or nesting habitat is minimal; therefore, impacts to these species will be less than significant.

Construction during the nesting bird season could result in the displacement of breeding migratory birds and/or the abandonment of active nests. Although adult birds can escape the project site to avoid direct harm, active nests could still be permanently impacted. The take of a special-status bird or active nests could be potentially significant.

Potential impacts to nesting birds will be prevented by conducting pre-construction nesting bird surveys and implementation of avoidance buffers (APM BIO-2). APM BIO-4 (Special-Status Species Protection) will also preclude avian nesting activities during construction. In addition, training all on-site personnel to reduce vehicle speeds (APM GEN-1) on project access roads will allow birds time to escape harm from moving vehicles to prevent mortality associated with construction vehicles and equipment. Implementation of these APMs will reduce impacts to nesting birds to a less-than-significant level.

Operation and Maintenance

Estrella Substation

Special-Status Plants

No special-status plants have been observed within the Estrella Substation work areas during surveys conducted between March and May 2016. Temporary or permanent impacts to plant species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by USFWS or CDFW, may occur if overland travel or equipment and materials staging occurred outside of the substation footprint. Access route and work areas, however, are on gravel or paved areas within the substation footprint; therefore, they are unlikely to impact sensitive or special-status plants. As a result, impacts to sensitive or special-status plants from operation and maintenance at Estrella Substation will be less than significant.

Special-Status Wildlife

Special-status species, such as San Joaquin kit fox or pallid bat, may be temporarily or permanently impacted from injury or mortality due to vehicular traffic associated with operation and maintenance of Estrella Substation. Regular monthly inspections and annual maintenance at the substation, however, will not result in a substantial increase of traffic on Union Road and therefore is not anticipated to have a substantial adverse effect on special-status species. Temporary impacts may also include short-term disturbance associated with vehicular and equipment traffic, disruptive noise, and increased human presence. These impacts to special-status species and their habitats, however, are anticipated to be minimal and, as a result, impacts will be less than significant.

Special-Status Birds

Operation and maintenance of the 230 kV interconnection has the potential to cause electrocution and collision hazards that can be posed by transmission line infrastructure or replacement of such infrastructure for maintenance purposes. These potential impacts will be minimized by design through the implementation of avian protection measures outlined in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006). Impacts to special-status birds or other birds protected under the MBTA will be less than significant.

Power Line Route

Special-Status Plants

Maintenance may result in temporary or permanent direct impacts to sensitive or special-status plants as a result of vegetation/plant removal or trimming activities around the power line and associated structures, by project vehicles traveling overland to the work areas, and by the staging of project equipment and/or vehicles and trucks in work areas. Operation and maintenance is not anticipated to result in a substantial adverse effect, either directly or indirectly through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Further, no special-status plants were observed in the project area during the 2016 field surveys; therefore, potential future impacts are not anticipated. As a result, impacts to special-status plants during operation and maintenance activities are anticipated to be less than significant.

Special-Status Wildlife

Special-status wildlife species may be permanently impacted during operation and maintenance activities from injury due to vehicular traffic. Temporary impacts may include harm, injury, or disturbance associated with vehicular and equipment traffic, disruptive noise, and increased human presence during inspection events. Inspections and maintenance along the power line route, however, are anticipated to be minimal, discrete events and thus impacts to special-status wildlife species and their habitats will be less than significant.

Special-Status Birds

The project has the potential to cause electrocution and collision hazards that can be posed by transmission infrastructure and the replacement of such infrastructure during maintenance events. However, these potential impacts will be minimized by the installation of specular conductor that will be more visible for the birds and allow them time to adjust to the new facilities and implementation of avian protection measures outlined in in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006). With implementation of these measures, impacts to special-status birds or other birds protected under the MBTA will be less than significant.

Bio-b: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife (CDFW) or USFWS? *(Less than Significant)*

Construction

Estrella Substation

Estrella Substation is dominated by cultivated vineyards and ruderal vegetation. No riparian habitats or sensitive natural communities occur within the Estrella Substation work area. The closest riparian habitat is located 1,400 feet northeast of the substation site and separated by developed vineyard operations. In conjunction with the required SWPPP for the project, appropriate BMPs will be developed for each activity that has the potential to degrade riparian habitat or other sensitive natural communities through erosion, sediment run-off, and other pollutants. As a result, impacts to riparian habitat or other sensitive natural community from construction of Estrella Substation will be less than significant.

Ground disturbance at the substation site has the potential to release sediments off-site, if left uncontrolled. Similarly, construction will require the use of heavy equipment, fuels, lubricants, solvents, etc., which, if released off-site, could impact the riparian area northeast of the substation. Such impacts will be avoided and minimized through implementation of a worker environmental training program (APM GEN-1, WEAP Training Program) to increase worker awareness of site sensitivity when work is occurring near sensitive habitats, and by developing and implementing hazardous substance control and emergency response procedures APM HAZ-1 (Hazardous Substance Control and Emergency Response). Implementation of these APMs will further reduce already less-than-significant direct and indirect impacts to riparian habitats or sensitive natural communities.

Power Line Route

The power line route spans several riparian corridors including those along Huerhuero Creek and 10 other unnamed ephemeral drainages. However, the project has been designed to avoid all riparian habitats. As a result, no permanent impacts to riparian habitats or sensitive natural communities will occur as a result of power line route construction.

Riparian areas could be temporarily impacted by fuel spills; however, hazardous substance control and emergency response procedures will be implemented per APM HAZ-1 (Hazardous Substance Control and Emergency Response). Riparian areas could be temporarily affected from fugitive dust, storm water runoff, or sediment, which will be reduced or avoided with the development and implementation of the project SWPPP.

Indirect impacts will also be reduced by preventing the spread of noxious weeds by project compliance with the SWPPP measures to reduce soil track out. Implementation of a worker environmental training program (APM GEN-1, WEAP Training Program) and requiring an on-site biological monitor near sensitive habitat areas (APM BIO-3, Biological Monitoring) to increase worker awareness of site sensitivity when work is occurring near riparian habitats will further reduce already less-than-significant impacts.

Three vegetation communities observed along the power line route (blue oak woodland, Central Coast cottonwood-willow riparian forest, and coastal and valley freshwater marsh) are considered sensitive communities under the *City of El Paso De Robles General Plan*. Furthermore, five vegetation communities (blue oak woodlands, central [Lucian] coastal scrub, Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, and sandy wash) are considered sensitive by CDFW. However, the project has been designed to avoid central coastal scrub, Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, and sandy wash. As a result, no impacts to these communities are anticipated to occur.

Construction-related impacts to vegetation communities will be further minimized by training all on-site personnel on restricted access route and work areas (APM GEN-1) and requiring an on-site biological monitor near sensitive habitat areas (APM BIO-3). The project, however, may have up to 0.1 acre of direct permanent impacts to blue oak woodlands as a result of pole and tower installation, as well as vegetation removal and clearing activities. This includes up to three oak trees that may need to be removed to construct the project. However, three trees are an insignificant amount compared to overall countywide distribution of oak trees. Therefore, oak tree removal is not considered a substantial adverse effect and impacts will be less than significant.

Soil compaction, as well as the introduction of nonnative or invasive species from project vehicles and equipment will be avoided and minimized through worker awareness of sensitive natural communities (APM GEN-1). Implementation of this APM will further reduce already less-than-significant impacts.

No temporary impacts to central coastal scrub, Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, or sandy wash are anticipated to occur. Approximately 6.8 acres of blue oak woodlands will be temporarily impacted as a result of project vehicles traveling within construction work areas (including access routes), from the staging of project equipment and/or vehicles traversing work areas, and vegetation/plant trimming activities before and during construction. However, these impacts will be temporary and less than significant.

Sensitive habitats could be temporarily affected from fugitive dust, fuel spills, or storm water runoff and sediment. However, the project SWPPP will include appropriate BMPs for each activity that has the potential to degrade riparian habitat or other sensitive natural communities through erosion, sediment run-off, and other pollutants. As a result, impacts to sensitive habitats from construction of the power line route will be less than significant.

The project proponents will implement APM HAZ-1 (Hazardous Substance Control and Emergency Response) to ensure that hazardous substance control and emergency response procedures are applied. All on-site personnel will be trained on sensitive habitat communities and restricted access route and work areas (APM GEN-1), as well as prevention of the spread of noxious weeds in accordance with SWPPP requirements to reduce track out. Implementation of these APMs and the project SWPPP will further reduce already less-than-significant impacts.

Operation and Maintenance

Estrella Substation

Riparian habitats or sensitive natural communities do not occur at the Estrella Substation site. Considering the closest riparian habitat/sensitive natural community is approximately 1,400 feet northeast of the substation, direct or indirect impacts associated with monthly inspections and annual maintenance are unlikely to impact this habitat/community. Herbicides associated with vegetation management or equipment and vehicles used during operation and maintenance may release hazardous materials such as fuels, lubricants, solvents, etc., which, if released off-site, could impact the water quality of potentially jurisdiction features. However, a Spill Prevention Control, and Countermeasure Plan (SPCC) will be developed and implemented to ensure impacts associated with any potential leaks or spills will be negligible. As a result, impacts to riparian habitats or sensitive natural communities from operation and maintenance of Estrella Substation will be less than significant.

Power Line Route

Operation and maintenance of the power line route, including regular inspections and maintenance activities as necessary, will have no substantial adverse effect on riparian habitats along the power line route. Temporary or permanent impacts to riparian areas may occur from tree trimming/vegetation removal activities required under G.O. 95, Section III. Vegetation that grows within 10 horizontal feet of any conductor within the easement will be trimmed, if that vegetation has a mature height of 15 feet or greater. The project, however, has been designed to avoid placing structures within riparian areas. As a result, impacts associated with G.O. 95 compliance are anticipated to be minimal and less than significant.

Sensitive natural communities will not be impacted by operation of the power lines; however, maintenance along the power line route may result in temporary or permanent impacts to sensitive natural communities as a result of tree trimming and/or vegetation removal activities required under G.O. 95 Section, III. An approximately 10-foot radius (approximately 314 square feet) may be maintained around new power poles dependent on location and equipment installed as required by G.O. 95 and California Public Resources Code Section 4292. Project proponents may therefore keep these areas clear of natural vegetation. Vegetation that grows within 10 horizontal feet of any conductor within the easement will be trimmed, if that vegetation has a mature height of 15 feet or greater. Herbicides will be used for some vegetation maintenance activities. Vegetation trimming/removal, overland access routes, and work and staging areas in sensitive natural communities will be minimal. As a result, impacts to riparian habitats and sensitive natural communities during operation and maintenance of the power line route will be less than significant.

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

Construction

Estrella Substation

No federally protected wetland or other waters are present within the Estrella Substation work area. The closest potentially jurisdictional feature is located 1,400 feet northeast of the substation site. While no direct impacts (removal, filling, or hydrological modification) to waters will occur, ground disturbance at the substation site will occur to facilitate construction and has the potential to release sediments off-site if left uncontrolled. Similarly, construction will require the use of heavy equipment, fuels, lubricants, solvents, etc., which, if released off-site, could impact water quality of potentially jurisdiction features. In conjunction with the required SWPPP for the project, appropriate BMPs will be developed for each activity that has the potential to degrade surrounding water quality through erosion, sediment run-off, and other pollutants. As a result, impacts on federally protected wetlands from construction of Estrella Substation will be less than significant.

The potential for indirect impacts to jurisdictional features will be further avoided and minimized through implementation of a worker environmental training program (APM GEN-1, WEAP Training Program) to increase worker awareness of site sensitivity when work is occurring near wetlands and other waters, and by developing and implementing hazardous substance control and emergency response procedures (APM HAZ-1, Hazardous Substance Control and Emergency Response). Implementation of these APMs will further reduce already less-than-significant impacts to federally protected wetlands or other waters.

Power Line Route

Eleven potentially jurisdictional drainage features are located along the power line route, including Huerhuero Creek and 10 other unnamed ephemeral drainages that eventually flow into Huerhuero Creek and/or Salinas River. In addition, two potentially jurisdictional seasonal wetlands were mapped within the project area along the power line route. However, the project has been designed to avoid direct impacts in the form of removal, filling, or other hydrologic alteration of wetlands or other waters. Therefore, impacts on jurisdictional drainage features from construction of the power line route will be less than significant.

Jurisdictional features could be temporarily affected by fugitive dust, storm water runoff, or sediment, which will be reduced or avoided with the development and implementation of the SWPPP. Construction will require the use of heavy equipment, fuels, lubricants, solvents, etc., which, if released off-site, could temporarily impact the water quality of potentially jurisdictional features. Such impacts will be avoided and minimized through implementation of a worker environmental training program (APM GEN-1) and by developing and implementing hazardous substance control and emergency response procedures as identified in APM HAZ-1. Implementation of these APMs will further reduce already less-than-significant impacts.

Operation and Maintenance

Estrella Substation

As discussed under the Construction heading, the closest potentially jurisdictional feature is located 1,400 feet northeast of the substation site. While no direct impacts (removal, filling, or hydrological modification) to federally protected waters will occur, herbicides associated with vegetation management or equipment and vehicles used during operation and maintenance may release hazardous materials such as fuels, lubricants, solvents, etc., which, if released off-site, could impact the water quality of potentially jurisdiction features. Approximately 1,400 feet of permeable surface is located between the substation site and the nearest potentially jurisdictional drainage channel. Furthermore, an SPCC will be developed and implemented to ensure impacts associated with any potential leaks or spills will be negligible. As a result, impacts to federally protected wetland and other waters as defined by Section 404 of the CWA from operation and maintenance of Estrella Substation will be less than significant.

Power Line Route

Eleven potentially jurisdictional drainage features and two potential seasonal wetlands were mapped within the project area along the power line route. Wetlands and other waters could be indirectly impacted from vehicular travel, fuels, lubricants, solvents, etc., which if released off-site could impact water quality of potentially jurisdiction features. Further, the use of herbicides for maintenance around power poles as required by G.O. 95 and California Public Resources Code Section 4292 has the potential to impact water quality. Application of herbicides is conducted under the prescription of a licensed qualified applicator and volume and concentration are determined by a professional applicator then prescribed based on environmental conditions. Pesticide application associated with operation and maintenance will not directly or indirectly impact wetlands. The project has been designed to avoid placing structures within aquatic features and therefore direct impacts to federally protected wetlands or other waters in the form of removal, filling, or other hydrologic alteration are not anticipated to occur during power line operation and maintenance activities. Therefore, impacts to federally protected wetland and other waters associated with operation and maintenance of the power line route will be less than significant.

Bio-d: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ***(Less than Significant)***

Construction

Estrella Substation

The Estrella Substation work area is located within a cultivated vineyard, adjacent to existing roads and structures and outside of any established migratory corridors. Terrestrial mammals may use the area surrounding the substation site for local migratory activity. However, the substation site is not within natural habitat and construction of the substation will not substantially impede or interfere with the movement of any native resident wildlife species. Therefore, impacts on resident or migratory fish or wildlife species during construction of Estrella Substation will be less than significant.

Construction activities may temporarily impede wildlife movement as a result of increased human activities, pedestrian and vehicular traffic, and noise. However, these impacts are temporary and will be less than significant. Training all on-site personnel on restricted access route and work areas (APM GEN-1, WEAP Training Program) will further reduce already less-than-significant impacts.

During the 2016 reconnaissance-level surveys, no nursery sites were observed at the substation site. As a result, construction activities at Estrella Substation are not anticipated to interfere with the use of any wildlife nursery sites and impacts will be less than significant.

A pre-construction survey will be conducted prior to initial vegetation clearing, grubbing, and ground-disturbing activities (APM BIO-1, Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas) to ensure no nursery sites have been established between the reconnaissance-level surveys and the time of construction. In the event native wildlife nursery sites are discovered during the pre-construction survey, biological monitoring will be conducted and/or avoidance buffers will be established as identified in APM BIO-3 (Biological Monitoring). Implementation of these APMs will further reduce already less-than-significant impacts.

Construction of Estrella Substation will not require any in-water construction or work in waterways; therefore, no direct impacts or impediments to the movement of migratory fish species will occur. Considering the closest ephemeral drainage channel is approximately 1,400 feet northeast of the substation site, indirect impacts to the movement of migratory fish species, such as sedimentation or equipment refueling will not occur.

Construction of Estrella Substation will not 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. As a result, impacts will be less than significant.

Implementation of APMs GEN-1, BIO-1, and BIO-3 will ensure impacts remain less than significant.

Power Line Route

Natural areas observed along the power line route, such as Huerhuero Creek and other riparian areas, may function as corridors allowing for free movement of wildlife species. The project does not directly impact Huerhuero Creek or any other major streams, rivers, or canyons that would serve as a conduit for wildlife traveling long distances. Furthermore, the project involves constructing a new overhead power line and reconductoring an existing power line and will not require construction of fences or other barriers to wildlife movement. The project by nature will not fragment the landscape and/or isolate populations of wildlife. Therefore, impacts will be less than significant.

Project construction activities may temporarily impede wildlife movement as a result of increased human activities, pedestrian and vehicular traffic, and noise. Training on-site personnel to stay within the established project limits and use only existing roads to the extent practical (APM GEN-1, WEAP Training Program) will further minimize already less-than-significant impacts.

During the 2016 reconnaissance-level surveys, no nursery sites were observed along the power line route; therefore, construction activities are not anticipated to interfere with the use of any wildlife nursery sites. As a result, impacts will be less than significant.

A pre-construction survey will be conducted prior to initial vegetation clearing, grubbing, and ground-disturbing activities (APM BIO-1, Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas) to ensure no nursery sites have been established between the reconnaissance-level surveys and the time of construction. In the event that native wildlife nursery sites are discovered during the pre-construction surveys, biological monitoring will be conducted and/or avoidance buffers will be established as identified in APM BIO-3 (Biological Monitoring). Implementation of these APMs will further reduce already less-than-significant impacts.

Construction of the power line route will not require any in-water construction or work in waterways; therefore, no direct impacts or impediments to the movement of migratory fish species will occur. Federally designated critical habitat for steelhead (Evolutionary Significant Unit for South-Central California Coast steelhead in Salinas Hydrologic Unit 3309, Paso Robles Hydrologic Sub-area 330981) occurs along Salinas River approximately 150 to 1,300 feet west of the reconductoring segment. However, no steelhead critical habitat or primary constituent elements required to support this species is present and steelhead critical habitat does not encroach within the project area.

Construction of the power line route will not 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. Impacts will be less than significant.

Implementation of APMs GEN-1, BIO-1, and BIO-3 will ensure impacts associated with construction of the power line route remain less than significant.

Operation and Maintenance

Estrella Substation

Estrella Substation will be constructed in a cultivated vineyard, adjacent to existing roads and structures and outside of any established migratory corridors. Operation and maintenance of Estrella Substation will result in permanent impacts to approximately 15 acres of habitat suitable for local migratory activity; however, the substation site is not within natural habitat and therefore will not substantially impede or interfere with the movement of any native resident wildlife species. Temporary impacts to wildlife movement will be limited to occasional operation and maintenance activities, such as human activities, pedestrian and vehicular traffic, and noise, and therefore will be less than significant. There are no known nursery sites located at the substation site; therefore, operation and maintenance activities are not anticipated to interfere with the use of any wildlife nursery sites.

Operation and maintenance of Estrella Substation will not require any in-water construction or work in waterways; therefore, no direct impacts or impediments to the movement of migratory fish species will occur. Considering the closest ephemeral drainage channel is approximately 1,400 feet northeast of Estrella Substation, indirect impacts such as sedimentation or equipment refueling are not anticipated to impact the movement of migratory fish species.

Operation and maintenance of Estrella Substation will not 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. Operation and maintenance impacts to wildlife movement corridors and nursery sites will be less than significant.

Power Line Route

Operation and maintenance of the power line route will not involve the installation of new fences or other permanent barriers to wildlife movement. Temporary disturbances to wildlife movement along the power line route will be limited to occasional maintenance activities, such as human activities, pedestrian and vehicular traffic, and noise. As a result, impacts on wildlife movement during operation and maintenance of the power line route will be less than significant.

No nursery sites were observed along the power line route during the 2016 reconnaissance-level surveys; therefore, no direct impacts to nursery sites will occur. In the event that nursery sites were to occur in the future, impacts associated with operation and maintenance activities are anticipated to be less than significant.

Operation and maintenance of the power line route will not require any in-water construction or work in waterways; therefore, no direct impacts or impediments to the movement of migratory fish species will occur.

Operation and maintenance of the power line route will not interfere 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. In the event that nursery sites were to occur in the future, impacts associated with operation and maintenance activities are anticipated to be less than significant.

Bio-e: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *(Less than Significant)*

Construction

Estrella Substation

The County General Plan includes a *Conservation and Open Space Element*, which addresses the protection and management of natural resources, biodiversity, and open space.

Environmental factors have been considered and incorporated into the siting and design of Estrella Substation. Following construction, temporary work areas will be stabilized using soil stabilization measures outlined in the project SWPPP, such as (but not limited to) the application of soil binders or hydraulic mulch. To avoid new resource impacts, Estrella Substation has been located in an area with limited natural habitat and away from wetlands, streams, lakes, marine areas, and riparian areas. As designed, construction of Estrella Substation will not conflict with the County General Plan and impacts will be less than significant.

Sensitive biological resources in close proximity to Estrella Substation will be avoided or minimized by training all on-site personnel on restricted access route and work areas and to remove only the minimum amount of vegetation necessary to prevent impacts to sensitive or special-status species or habitats (APM GEN-1, WEAP Training Program). Furthermore, biological monitoring will be required within and near sensitive habitat areas during ground-disturbing activities to ensure sensitive biological resources are not impacted (APM BIO-3, Biological Monitoring). Threatened, rare, endangered and sensitive species will be protected by conducting pre-construction surveys (APM BIO-1, Conduct Preconstruction Survey(s) for Special Status-Species and Sensitive Resource Areas, and APM BIO-2, Nesting Bird Surveys), by preventing entrapment or injury through providing wildlife escape routes in open excavations and proper materials storage (APM BIO-4, Special-Status Species Protection). Implementation of the afore-mentioned APMs will be consistent with local policies and ordinances and impacts to sensitive biological resources will be less than significant.

Oaks

Estrella Substation has been sited to avoid native oak woodlands; as such, no oak trees will be removed to construct the substation, and no impacts to oak woodlands will occur.

Further, impacts to oak woodlands within the vicinity of the substation will be avoided or minimized by implementing APM GEN-1 (WEAP Training Program) which will ensure that all on-site personnel are trained to eliminate project activities (including parking and driving) from occurring underneath oak trees in order to preserve the root structures and to limit vegetation removal to the minimum amount necessary. As a result, there will be no conflicts with local tree policies or ordinances during construction of Estrella Substation and no impacts to oak woodlands will occur.

San Joaquin Kit Fox

A focused survey for San Joaquin kit fox was conducted in June 2016 to determine presence of potential kit fox within the substation site and to identify habitat quality. No San Joaquin kit fox or sign of kit fox were observed during the survey; however, suitable foraging habitat and suitable den sites were observed at the substation site. For projects that require a County permit, CDFW and the County have developed mitigation measures to reduce impacts to San Joaquin kit fox habitat to an insignificant level. In addition, pre-determined standard mitigation ratios have been developed for County-permitted projects located within kit fox habitat areas.

While the project is exempt from the County's discretionary permitting and mitigation, provisions and mitigation requirements required by CDFW and the County have been evaluated for consistency in order to avoid and/or minimize impacts to San Joaquin kit fox during construction of the substation. For example, the County's standard kit fox mitigation measures include: retaining a qualified biologist to conduct pre-construction survey of the project site and conducting a pre-construction kit fox briefing for construction workers to minimize kit fox impacts; inclusion of kit fox protection measures on project plans; establishment of a maximum 25–mile-per-hour speed limit at the project site during construction; and covering excavations deeper than 2 feet at the end of each working day or provide escape ramps for kit fox.

Fugitive dust could also impact habitat quality or foraging habitat around the substation site after construction, and vegetation removal could provide increased opportunity for predation of kit fox's prey base. However, these potential impacts will be minimized by revegetation measures required in the project SWPPP to establish permanent erosion control and vegetative cover in areas disturbed by construction.

The project proponents will implement APMs to avoid and minimize impacts to San Joaquin kit fox. All suitable dens in the substation work area will be surveyed for sign of kit fox and collapsed prior to the start of construction (APM BIO-1). If San Joaquin kit fox or sign of kit fox are observed during these pre-construction surveys, the project proponents will contact USFWS or CDFW and avoidance buffers will be established. Workers will be trained to prevent impacts to kit fox and their habitat (APM GEN-1), including restricting vehicle speed to a 15-mile-per-hour speed limit along access roads to reduce dust and enable potential San Joaquin kit fox to disperse. During construction, wildlife escape ramps will be provided in open trenches to prevent entrapment and open-ended pipes will either be capped to prevent kit fox from entering or inspected prior to moving open pipes (APM BIO-4). As a result, implementation of these APMs will be consistent with the County and CDFW standard kit fox mitigation measures and impacts will be less than significant

Power Line Route

The County General Plan, Oak Woodland Management Plan, and San Joaquin kit fox mitigation requirements have been considered with respect to construction of the power line route. In addition to the County plans and policies, the power line route bisects Paso Robles; therefore, that portion of the project is designed to be consistent with City policies and ordinances.

The City's General Plan includes a *Conservation Element* and *Open Space Element*, which address the City's commitment to rehabilitate and enhance the environmental quality of the planning area. Consistent with goals and policies that pertain to biological resources in the City General Plan, sensitive biological resources within or in close proximity to the power line will be avoided or minimized by project design. The power line route has been designed to avoid vernal pools and other wetlands and waters. The project has also been designed to minimize impacts to oak trees and woodlands. Temporary work areas will be stabilized as required by the project SWPPP to minimize the potential for invasive species, through such actions as (but not limited to) hydromulching, application of soil binders, or installation of erosion control blankets in disturbed areas. As a result, construction of the power line route will not conflict with County or City policies and ordinances, and impacts will be less than significant.

Implementation of APMs such as providing worker environmental awareness training, delineating sensitive resource areas for avoidance, and confining access routes and work areas to minimize impacts to sensitive or special-status species or habitats (APM GEN-1) will further avoid and minimize conflicts with County or City policies and ordinances. Sensitive and special-status plant and wildlife species will be further protected by requiring pre-construction surveys (APM BIO-1 and APM BIO-2) and by minimizing the potential for entrapment or injury through APM BIO-4. Implementation of these APMs will further reduce already less-than-significant impacts related to County or City policies and ordinances.

Up to three oak trees may be removed within city limits to construct the power line route in order to provide construction equipment access to construction work areas, as well as provide for safe and adequate space for power line structures and conductor. However, approximately 1,600 oak trees greater than 6 inches in diameter at breast height were observed in the BSA. As a result, the loss of up to three oak trees is considered to be a less-than-significant impact.

Provisions regarding oak tree mitigation have been evaluated for consistency. A PG&E and/or certified arborist will evaluate oak trees that require trimming or removal and identify appropriate measures to minimize any additional tree loss. All on-site personnel will be trained to avoid driving and parking on unpaved areas underneath oak trees in order to protect the root structures (APM GEN-1). Implementation of this APM will further reduce already less-than-significant impacts related to the City's Oak Tree Ordinance.

In summary, APMs GEN-1, BIO-1, BIO-2, BIO-3, and BIO-4 have been designed to not conflict with County and City policies. Implementation of these APMs will further reduce already less-than-significant impacts associated with potential conflicts with local policies or ordinances relating to protecting biological resources during construction of the power line route.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will primarily occur within the substation footprint and along existing access roads and will not conflict with any local policies or ordinances protecting biological resources. As a result, no impact will occur.

Power Line Route

Operation and maintenance of the power line route will be generally consistent with local policies or ordinances protecting biological resources. Temporary or permanent impacts to oak trees may occur from tree trimming/vegetation removal activities to maintain minimum clearances required and to prevent dead, rotten, or diseased portions of otherwise healthy trees from falling onto a power line. The City's Oak Tree Ordinance allows oak tree trimming by public utilities subject to the jurisdiction of CPUC, as necessary, to maintain a safe operation for facilities. As a result, operation and maintenance of the power line route will not conflict with local policies or ordinances and no impact will occur.

Bio-f: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? *(No Impact)*

Based on a review of the Ventura USFWS office's HCP database and CDFW's California Regional Conservation Plans map, there are no adopted HCPs or NCCPs in the project vicinity. As a result, no impact will occur.

3.4.5 References

Althouse and Meade, Inc. 2013. *Biological Report for River Oaks II, 2013 Revised Study Area*. Prepared for Estrella Associates. August 1999. Updated October 2013.

Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds). 2012. *The Jepson Manual: Vascular Plants of California*. Second edition. University of California Press, Berkeley.

Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey, and T.E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No. FG3146WM.

Calflora. 2016. Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. Berkeley, California: The Calflora Database. Online: http://www.calflora.org/. Accessed June and July 2016.

California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines*. Online: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html. Accessed August 2016.

California Department of Fish and Wildlife (CDFW). 2009. *Protocol for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities*. Surveying and Monitoring Protocols and Guidelines. Online: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html. Accessed April 2016.

_______. 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.

_______. 2014. *Complete List of Amphibian, Reptile, Bird and Mammal Species in California*. Sacramento, CA. Online: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155. Accessed June 2016.

_______. 2015. *California Regional Conservation Plans Map*. August 2015.

_______. 2016a. California Natural Diversity Database (CNDDB) RareFind5. CDFW 2003, as updated 2016.

_______. 2016b. *Special Vascular Plants, Bryophytes, and Lichens List*. Quarterly publication. Online: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383. Accessed June 2016.

_______. 2016c. *Special Animals List*. 126 pp. April 2016. Online: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline. Accessed June 2016.

California Herps. 2000–2016. California Herps: A Guide to the Amphibians and Reptiles of California. Online: http://www.californiaherps.com. Accessed May and June 2016.

_______. 2013. Northern California Legless Lizard – *Anniella pulchra.* Online: http://www.californiaherps.com/lizards/pages/a.pulchra.html. Accessed June 2016.

_______. 2016a. Blainville's Horned Lizard - *Phrynosoma blainvillii.* Online: http://www.californiaherps.com/lizards/pages/p.blainvillii.html. Accessed June 2016.

_______. 2016b. Western Spadefoot – *Spea hammondii.* Online: http://www.californiaherps.com/frogs/pages/s.hammondii.html#moreinfo. Accessed March 2016.

California Native Plant Society (CNPS). 2016. *Inventory of Rare and Endangered Plants* (online edition, v8-02). California Native Plant Society Rare Plant Program, Sacramento, CA. Online: http://www.rareplants.cnps.org. Accessed June 1, 2016.

California State University, Stanislaus. 2016. Endangered Species Recovery Program: San Joaquin Kit Fox (*Vulpes macrotis mutica*). Online: http://esrp.csustan.edu/publications/pubhtml.php?doc=sjvrp&file=chapter02L00.html. Accessed June 2016.

City of El Paso de Robles. 2002. Ordinance No. 835 N.S. An Ordinance of the City of El Paso de Robles. Amending Section 10.01 et seq. and Related Provisions of the Municipal Code (Municipal Code Amendment 2001-001-OAK TREES). Online: http://www.prcity.com/government/departments/commdev/planning/pdf/OakTreeOrd.pdf . Accessed June 2016.

_______. 2016. Rainfall Totals. City of Paso Robles Public Works Department. Online: http://www.prcity.com/government/departments/publicworks/water/rainfall.asp. Accessed July 2016.

Clark, Jr., H.O. 2001. Endangered San Joaquin Kit Fox and Non-Native Red Fox: Interspecific Competitive Interactions. M.S. thesis, California State University, Fresno, California.

County of San Luis Obispo. 2003. *Oak Woodlands Management Plan.* Prepared by the Native Tree Committee of San Luis Obispo County. Autumn 2003. Online: http://ucanr.edu/sites/oak_range/files/60623.pdf. Accessed June 2016.

___ ____. 2006. *Federal and State Regulations Guide to the San Joaquin Kit Fox*. San Luis Obispo County Planning and Building Department. Online: http://www.slocounty.ca.gov/Assets/PL/environmental/Kit+Fox+Regulation+Brochure.pdf. Accessed June 2016.

_______. 2010. *County of San Luis Obispo General Plan: Conservation and Open Space Element.* San Luis Obispo County Department of Planning and Building. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed June 2016.

Dudek and ICF International. 2012. Mammals: Pallid Bat (*Antrozous pallidus*). Online: http://drecp.org/documents/docs/baseline_biology_report/10_Appendix_B_Species_Profiles/10d_Mammal/Pallid%20Bat.pdf. Accessed November 2016.

eBird. 2016. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Online: http://www.ebird.org. Accessed June and July 2016.

Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California*. Nongame-Heritage Program, The Resources Agency, California Department of Fish and Game, Sacramento. 156 pp.

Jennings M.R and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. Prepared for California Department of Fish and Game Inland Fisheries Division. Rancho Cordova, California.

National Oceanic and Atmospheric Administration (NOAA). 2016. National Weather Service Forecast Office-NOWData – NOAA Online Weather Data. Monthly Climate Normals (1981-2010)-Paso Robles. Online: http://www.ncdc.noaa.gov/cdo-web/datatools/normals. Accessed June 2016.

Rincon Consultants, Inc. 2003. *City of El Paso de Robles General Plan: Conservation Element.* Online: http://www.prcity.com/government/departments/commdev/planning/general-plan-final.asp. Accessed June 2016.

____. 2006. *City of El Paso de Robles Chandler Ranch Area Specific Plan Environmental Impact Report. Volume 1 of 2: EIR Analysis.* Submitted to City of El Paso de Robles. May 2006. Online: http://www.prcity.com/government/departments/commdev/planning/chandler-ranch_FEIR.asp. Accessed June 2016.

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation*. Second edition. California Native Plant Society Press, Sacramento, CA.

U.S. Army Corps of Engineers (USACE). 2008a. *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States*. December 2, 2008. Online: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/cwa_juris_2dec08.pdf. Accessed on December 8, 2016.

_______2008b. *A Field Guide to the Identification of Ordinary High Water Mark (OHWM) in the Arid West Region of the United States*. Robert W. Lichvar and Shawn M. McColley (editors). Hanover, New Hampshire: ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center.

____. 2016. *National Wetland Plant List (NWPL), Arid West Region*. Washington, DC.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2015. Hydric Soils of the United States. December 2015. Online: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed July 2016.

___ ____. 2016. Web Soil Survey. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Staff. Online: http://websoilsurvey.nrcs.usda.gov/. Accessed June 2016.

U.S. Fish and Wildlife Service (USFWS). 1996. *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California.* Sacramento, California.

_______. 2003. Migratory Bird Permit Memorandum. Online: https://www.fws.gov/policy/m0208.pdf. Accessed on July 19, 2016.

_______. 2005a. *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*. August 2005.

_______. 2006. Critical Habitat Designation for 4 Vernal Pool Crustaceans and 11 Vernal Pool Plants. *Federal Register* Notice 71 FR 7118. February 10, 2006. _______. 2007. *Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) 5-Year Review: Summary and Evaluation*. Sacramento, California.

_______. 2016a. USFWS Critical Habitat Portal. Online: http://criticalhabitat.fws.gov/. Accessed June 2016.

_______. 2016b. National Wetlands Inventory, Geographic Information Systems (GIS) Layers. Online: http://atlas.ca.gov/. Accessed April 2016.

_______. 2016c. Species List. Online: https://ecos.fws.gov/ipac/. Accessed June 3, 2016.

_______. 2016d. Individual Habitat Conservation Plans. Online: https://www.fws.gov/ventura/endangered/habitatconservation/plans/index.html. Accessed July 2016.

U.S. Geological Survey (USGS). 2016a. National Hydrography Dataset. Online: http://nhd.usgs.gov/data.html. Accessed June 2016.

_______. 2016b. Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, and San Miguel 7.5-minute Series Topographic Quadrangles. Washington, DC: United States Department of the Interior.

Warrick, G.D., H.O. Clark, Jr., P.A. Kelly, D.F. Williams, and B.L. Cypher. 2007. Use of agricultural lands by San Joaquin kit foxes. *Western North American Naturalist* 67:270–277.

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

3.5.1 Introduction

This section describes existing conditions and potential impacts on cultural and paleontological resources as a result of construction, operation, and maintenance of the project. It presents the methods and results of cultural and paleontological resource studies conducted for the project. A total of 21 cultural resources were identified within the study area during field investigations, including historic period buildings and structures, archaeological sites, and isolated objects. No paleontological resources were identified within the study area during field efforts.

This analysis concludes that impacts on cultural and paleontological resources will be less than significant with implementation of the Applicant Proposed Measures (APMs) described in Section 3.5.4, Applicant-Proposed Measures and Potential Impacts. The project's potential effects on cultural and paleontological resources were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.5-1, CEQA Checklist for Cultural and Paleontological Resources, and discussed in more detail in Section 3.5.4. The following summary concerning cultural resources is derived from the 70 kV Power Line and Estrella Substation Cultural Resources Technical Reports (CRTRs) and Paleontological Resources Technical Reports (PRTRs). The Substation CRTR and PRTR are included as Appendix R and the Power Line CRTR and PRTR are included as Appendix S. Cultural resource survey results, location maps, and site records will be submitted confidentially. Appendix D presents copies of communications with the California Native American Heritage Commission (NAHC) and Native American tribes identified by the NAHC.

Table 3.5-1. CEQA Checklist for Cultural and Paleontological Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL AND PALEONTOLOGICAL RESOURCES ***Would the project:***				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Table 3.5-1. CEQA Checklist for Cultural and Paleontological Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐
e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: [1]				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

[1] CPUC will conduct outreach with eligible tribes under Public Resources Code § 21080.3.1 once the application is complete. The project proponents are not aware of any Tribal Cultural Resources that will be impacted by the project.

3.5.2 Regulatory Background and Methodology

3.5.2.1 Regulatory Background

Federal

A federal agency is not approving, implementing, or funding the project or any element of it; therefore, Section 106 of the National Historic Preservation Act (NHPA) and the Paleontological Resources Preservation Act do not apply to this project.

State

California Register of Historical Resources

Under Section 21083.2 of CEQA, an important archaeological or historical resource is an object, artifact, structure, or site that is listed on, or eligible for listing on, the California Register of Historical Resources (CRHR). Eligible resources are those that can be clearly shown to meet any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. 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 value.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Automatic listings include properties that are listed on the NRHP. In addition, Points of Historical Interest nominated from January 1998 onward are to be jointly listed as Points of Historical Interest and in the CRHR.

Resources listed in a local historic register or deemed significant in a historical resources survey, as provided under PRC Section 5024.1(g), are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates that they are not. A resource that is not listed on or determined to be ineligible for listing on the CRHR, not included in a local register of historical resources, or not deemed significant in a historical resources survey may nonetheless be historically significant, as determined by the lead agency (PRC Section 21084.1 and Section 21098.1).

Assembly Bill 52

Assembly Bill 52 (AB 52) established that Tribal Cultural Resources (TCR) must be considered by the lead agency under CEQA and also provided for additional Native American consultation requirements to be undertaken by the lead agency. A TCR is a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe, and is:

1. On the CRHR or a local historic register;
2. Eligible for the CRHR or a local historic register; or,
3. The lead agency determines that the resource meets the register criteria.

A project that has potential to impact a TCR such that it would cause a substantial adverse change constitutes a significant effect on the environment unless mitigation reduces such effects to a less-than-significant level. The Governor's Office of Planning and Research (OPR) has issued revised CEQA Guidelines to incorporate AB 52 requirements.

Under AB 52, the CPUC will conduct consultations with eligible tribes regarding TCRs once the PEA application is deemed complete and the CPUC begins CEQA review of the project.

California Health and Safety Code and Public Resources Code

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030).

Several provisions of the PRC also govern archaeological finds of human remains and associated objects. Procedures are detailed under PRC Section 5097.98 through 5097.996 for actions to be taken whenever Native American remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the PRC. Any person removing human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

PRC Chapter 1.7, Section 5097.5/5097.9 (Stats. 1965, c. 1136, p. 2792), entitled *Archaeological, Paleontological, and Historical Sites*, defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources.

Local

Because CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local discretionary regulations. The following description of regulations that designate local historic resources is provided for informational purposes and to assist with CEQA review.

City of El Paso de Robles General Plan

Historic preservation is addressed in the *Land Use*, *Conservation*, and *Housing Elements* of the *City of El Paso de Robles General Plan*. Some of the policies and procedures specifically address historic preservation and the treatment of historic buildings, while others are important considerations to the overall character and appearance of historic properties and neighborhoods or can be used to encourage preservation practices. The *Conservation Element* includes goals, policies, and action items that strive to preserve and protect the city's important historic and archaeological resources. The *Conservation Element* requires the protection of cultural resources by implementing the Downtown Design Guidelines and establishing a Vine Street Historic and Architectural Preservation Overlay District.

City of El Paso de Robles Zoning Ordinance

The City of El Paso de Robles' (City) *Zoning Ordinance* Chapter 21.15 contains the Historical and Architectural Overlay (HP) District rules. It is the intent of the HP overlay district to encourage the preservation, restoration, and renovation of buildings and/or neighborhoods of architectural significance or interest. Paso Robles currently has an HP District bordered by Chestnut Street, Oak Street, 8th Street, and 21st Street, inclusive of both sides of these streets. This overlay zone is referred to as the Vine Street Overlay Zone and/or the Westside Historic District in City documents.

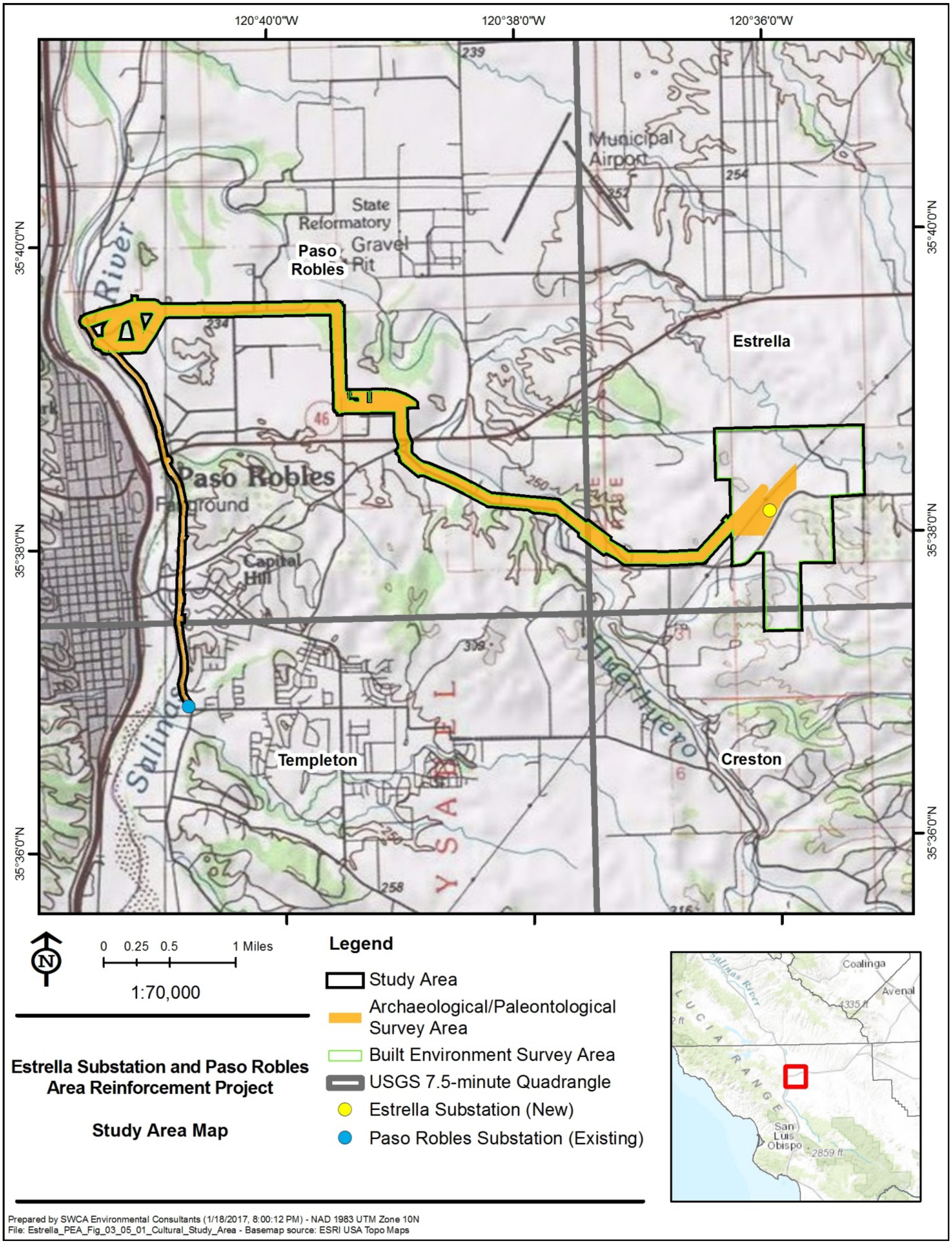
3.5.2.2 Methodology

Methods employed by the project proponents to identify cultural and paleontological resources within the study area included records searches, field surveys, geotechnical studies, and Native American coordination. In order to assess the potential of the project to impact subsurface cultural deposits, buried site sensitivity studies were also conducted. Cultural resources and paleontological studies were confined to an approximately 1,090-acre project study area (Figure 3.5-1, Study Area Map). The project study area consists of discipline-specific subareas, which were defined to focus identification efforts for archaeological resources, built environment resources, and paleontological resources. These include:

- Archaeological Survey Area (ASA): 509 acres comprising the 474-acre 70 kV power line route and the 35-acre Estrella Substation subareas. The ASA generally included a 400-foot corridor along the new 70 kV power line segment, a 100-foot corridor along the reconductoring segment, and the substation footprint and buffer area.
- Paleontological Survey Area (PSA): 509 acres comprising the 474-acre 70 kV power line route and the 35-acre Estrella Substation subareas. The PSA is conterminous with the ASA.
- Built Environment Survey Area (BESA): 1052 acres, which includes the 70 kV power line route, Estrella Substation, and all parcels surrounding the substation. The BESA did not include the reconductoring segment of the 70 kV power line as indirect impacts to potential built environment resources within this portion of the study area will not occur as a result of project implementation, since the existing transmission line will be replaced in kind.

A more detailed description of the methods used and results of this assessment are reported in the project's Estrella Substation and Paso Robles Area Reinforcement Project CRTRs and PRTRs (Appendices R and S).

Figure 3.5-1. Study Area Map



Cultural Resources

California Historical Resources Information System Records Search

Initial background research included a review of the cultural resources files housed at the Central Coast Information Center (CCIC), located at the University of California, Santa Barbara. The record search area consists of a total area of approximately 10,540 acres within a 1-mile radius of Estrella Substation and a 0.5-mile radius of the 70 kV power line route. At the request of the project proponents, the CCIC conducted two California Historical Resources Information System (CHRIS) records searches in support of the project. The first was conducted on September 10, 2015, and the second on April 12, 2016. In addition to reviewing previous studies and cultural resource records on file, the CHRIS searches included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California State Historical Landmarks list, the Archaeological Determinations of Eligibility list, the Historic Properties Directory, the Archaeological Determinations of Eligibility List, the California Inventory of Historic Resources, the California Department of Transportation Bridge Survey, and local historic resources inventories. Resource specialists also consulted online sources as part of the effort to identify potential unrecorded cultural resources prior to survey efforts and to better understand the nature and context of potential cultural resources encountered during the field survey.

Native American Coordination

As part of the effort to identify indigenous cultural resources within the study area, two requests were made of NAHC to search the Sacred Lands Files. The first request was made on March 29, 2016, and the second on April 5, 2016. On June 27, 2016, letters were sent to two contacts identified by the NAHC as possibly having knowledge of cultural resources within the study area. The letters requested any available information on resources in the project vicinity and invited general commentary or questions pertaining to the project. Two informal tribal outreach meetings were held on August 23, 2016. Each of the two tribes identified by the NAHC (the Salinan Tribe of Monterey and San Luis Counties and the Xolon-Salinan Tribe) requested a separate meeting with representatives from the project proponents.

Buried Site Sensitivity

In order to assess the potential of the study area to contain subsurface cultural deposits, a geoarchaeologist conducted a geoarchaeological desktop analysis by consulting a combination of aerial imagery, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soils data (SoilWeb 2016), as well as geologic maps and reports available for the area (Dibblee and Minch 2004; Durham 1974). Buried site sensitivity was assessed largely on the basis of landform type, depositional regime, and the age of geologic surfaces as inferred from the above sources. No field-based geoarchaeological testing was undertaken as part of the geoarchaeological analysis.

Archaeological Survey

Archaeologists conducted a series of intensive archaeological surveys within the study area, the first on March 3 and March 8, 2016, the second between May 16 and May 19, 2016, and the third on November 15, 2016. These archaeological field investigations were confined to an ASA consisting of approximately 509 acres (Figure 3.5-1). The ASA includes 35 acres for Estrella Substation and 474 acres for the 70 kV power line route study area. A small number of parcels were not surveyed, as landowners denied access to crews. In addition, certain areas were not surveyed due to unsafe conditions as a result of livestock or domestic animals. Of the approximately 509-acre ASA, 442 acres were subject to intensive pedestrian survey, 18 acres were not surveyed due to aforementioned issues of access or safety, and an additional 49 acres were not subject to pedestrian surveys as they are currently developed (i.e., obscured by existing buildings, structures, or hardscape). Also, newly added work areas associated with distribution pole work (totaling approximately 1 acre) and proposed access routes were not subject to archaeological survey.

The intensive-level archaeological surveys involved systematic surface inspection with transects walked at 15-meter (50-foot) intervals or less to ensure that all surface-exposed artifacts, sites, and built environment resources within the study area could be identified. Archaeologists documented all resources encountered on California Department of Parks and Recreation (DPR) 523 series forms. No artifacts were collected during the surveys.

Built Environment Survey

Architectural historians conducted a series of built environment surveys, the first on March 25, 2016, and the second between May 16 and May 20, 2016. Surveys were strategic, informed by background research of the BESA, including a review of the County Assessor's records, historical maps, and historical aerial photography. Due to access restrictions, it was not possible to survey all potential historical architectural resources within the BESA. Where access was not possible, architectural historians relied on the results of the desktop review to determine the age of a property and photo-documented potential historic-era architectural resources from the public right-of-way.

Paleontological Resources

Records Search and Literature Review

The study area was subject to thorough background research and analysis, including reviews of geologic maps, pertinent literature, and aerial photography, as well as records searches from the University of California Museum of Paleontology (Finger 2016) and the Natural History Museum of Los Angeles County (McLeod 2016). The purpose of the background research was to evaluate the paleontological sensitivity of the study area in order to identify known fossil resources within the area or nearby in the same geologic formations. Geotechnical data for the substation study area were also available (Appendix L). The records searches were requested for any previously recorded fossil localities in the power line footprint or within a 1-mile radius. Geotechnical data for the 70 kV power line were also available (Appendix M). The data were combined to develop paleontological sensitivity rankings for the geologic units present in and around the study area.

Paleontological Sensitivity

PG&E uses the Potential Fossil Yield Classification System (PFYC), developed by the U.S. Bureau of Land Management (BLM), to assess paleontological sensitivity and the level of effort required to manage potential impacts on significant resources (PG&E 2015). In this system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. The classifications range from very low to very high, with associated numerical indicators (i.e., Class 1 to Class 5, with the higher class number indicating higher potential). The classification is applied to the geologic formation, member, or other distinguishable unit at the most detailed scale available. PFYC classification does not reflect rare or isolated occurrences of significant fossils or individual localities, only the relative occurrence on a formation or member-wide basis. Any rare occurrences will require additional assessment and mitigation if they fall within the area of anticipated impacts.

The PFYC System is not intended to be applied to specific paleontological localities or small geographic areas within geologic units. Although significant localities may occasionally occur in a geologic unit, the existence of a few important fossils or localities widely scattered over a large area does not necessarily indicate a higher classification for the unit. The relative abundance of significant localities is intended to serve as the major determinant for the class assignment. The PFYC System is intended to provide baseline guidance for predicting, assessing, and mitigating impacts on paleontological resources.

In addition, fossil significance is defined by the Society of Vertebrate Paleontology (1995, 2010). Unique or significant fossils are fossils and fossiliferous deposits restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.

Paleontological Survey

A paleontologist carried out a series of paleontological field surveys within the study area on May 16 and 17, 2016. These paleontological field investigations were confined to a PSA consisting of approximately 509 acres (Figure 3.5-1). Its geographic extent corresponds exactly with that of the ASA, consisting of the 35 acres for Estrella Substation and the 474 acres for the 70 kV power line route.

Paleontological field surveys were carried out in order to assess any paleontologically sensitive geologic units visible on the land surface or in exposed profiles. Paleontological surveys focused on identifying: 1) surface fossils; 2) exposures of potentially fossiliferous rock; and 3) areas in which fossiliferous rock would be exposed or otherwise impacted during construction. The field survey was limited to areas with potential exposure of fossiliferous deposits in and around the project footprint. Surveys were also limited by agricultural and urban development, which obscured exposures of this kind at numerous locations.

Geotechnical Surveys

Two separate geotechnical surveys were carried out at the study area in the substation footprint and along the 70 kV power line route (Appendices L and M). Both of these studies consisted of a series of borings, the sediment logs of which can assist in interpreting the subsurface geology of the study area.

3.5.3 Environmental Setting

3.5.3.1 Cultural Context

Prehistory

California prehistory is divided into three broad temporal periods that reflect similar cultural characteristics throughout the state: Paleoindian Period (ca. 9000–6000 B.C.), Archaic Period (6000 B.C.–A.D. 500), and Emergent Period (A.D. 500–Historic Contact) (Fredrickson 1973, 1974, 1994). The Archaic is further divided into Lower (6000–3000 B.C.), Middle (3000–1000 B.C.), and Upper (1000 B.C.–A.D. 500) Periods. These divisions are generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic period.

The study area lies in the Central Coast Archaeological Region, which is one of eight arbitrary organizational divisions of the state (Moratto 1984). This region extends southward from Monterey Bay through Big Sur to Morro Bay, and includes southern Santa Cruz and Santa Clara Counties, all of San Benito and Monterey Counties, and most of San Luis Obispo County.

Jones and Ferneau (2002) have recently refined existing chronological sequences developed for the Central Coast Region, further subdividing the last 3,000 years into the Early–Middle Transition (1000–600 B.C.), Middle (600 B.C.–AD 1000), Middle–Late Transition (AD 1000-1250), and Late Periods (AD 1250–1769). We rely here on the regional chronological sequence as adapted by Jones and Ferneau (2002). Prehistoric sites found in the vicinity of the study area are typically near creeks and may consist of isolated chert lithics or lithic scatters, ground stone (portable mortars, pestles, bedrock mortars and/or cupules), and/or sparse pockets of midden soils. Habitation sites are seasonally occupied camps and small villages (Glover et al. 1999).

Ethnographic Overview: Salinan

The study area is in a region traditionally considered by archaeologists to have been prehistorically and ethnohistorically occupied by the Salinan (Hester 1978; Kroeber 1925). Milliken and Johnson's research (2005), based on ethnographic and linguistic data and relied upon here, suggests that the study area lies within the Salinan language zone, just east of the lands associated with the ethnographic Chumash. The Salinan sub-group known as the Migueleño occupied a portion of Salinan territory that includes the study area. Known ethnographic village sites near the study area are *him'-se-en'* between Paso Robles and Templeton on the west side of the Salinas River, and a major village at *isolam* near the present-day community of Cholame (Hester 1978). Gibson (1983) additionally plots the tentative locations of the rancherias of *tixja* and *sososquiquia* within the southern Salinas Valley to the north and south of the of the study area. In addition, Jones et al. (2007) note the possible ethnonym of *Etsmal* for the tribal group in this area.

The semi-sedentary Salinan occupied a rugged, mountainous area on the south-central California coast (Kroeber 1925; Hester 1978). Heavily wooded hills and mountains of the South Coast

Ranges dominated the interior, with sheer cliffs and rocky beaches along the Pacific coast. Salinan villages were recorded near the missions and along internal drainages, with some habitation areas along the coast (Hester 1978). No permanent sites were recorded in the Coast Range, although temporary camps were likely. Their subsistence economy was one of hunting and gathering. The surrounding environment was varied and rich, and they exploited the mountains, foothills, valleys, and coast. As with most native Californians, acorns were a staple food, supplemented by wild oats, sage seeds, berries, mescal, and wild fruits. Additional resources exploited by coastal and interior groups included large and small mammals such as deer, bear, and rabbits, as well as fish. The full extent of their villages is unknown, but Hester (1978) locates 21 from earlier records.

A variety of tools and implements, some of which are inferred from the archaeological record in the area, were employed by Salinan groups (Hester 1978). These included stone projectile point and scrapers, groundstone bowl and basket mortars, pestles, net sinkers, and arrowshaft straighteners, as well as bone and shell fish hooks, awls, and wedges. Ornaments included items made of steatite, serpentine, and abalone shell. Clothing included basket hats, rabbitskin or otterskin cloaks, and tule aprons. The Salinan also used beads made from mussel and abalone shell for currency and had musical instruments, such as cocoon rattles, wooden flutes, and bone whistles (Hester 1978).

Like other indigenous Californians living near the coastal missions, Salinan population decreased rapidly after the arrival of the Spanish. A relatively small population to begin with, the Salinan were decimated by diseases introduced by the missions and later settlers. By 1831, their number was fewer than 700, and their population continued to decrease even more rapidly after secularization of the missions (Hester 1978). Beginning in the late 1980s, a cultural revitalization began, and Salinan descendants contacted the Mission San Antonio de Padua to learn about family records.

3.5.3.2 Historical Context

Post-contact history for the state of California generally is divided into three specific periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529–1769, the Spanish first settled California in 1769 with the first of 21 missions established from 1769–1823. The Mexican Period is marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada Mountains.

With the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, California became a territory of the United States. The discovery of gold in 1848 at Sutter's Mill and the resulting Gold Rush era influenced the history of the state and the nation. The rush of tens of thousands of people to the gold fields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

With continued growth, California continues to be a national leader in agriculture and poultry production, ranching (cattle and sheep), aerospace and communications industries, as well as the film and entertainment business. The wealth of California's natural resources (e.g., lumber, petroleum deposits, minerals, and fish) also continues to contribute to its growth and development.

City of El Paso de Robles

The city has historically served as an economic and transportation hub for the rural agricultural area that encompasses the study area. The City of El Paso de Robles (Spanish for "the pass of oaks," today often called simply Paso Robles) is situated on the former lands of the Rancho Paso de Robles. Once an outpost of the Mission San Miguel, the 25,993-acre rancho was granted to Pedro Navarez in 1844. In 1857, Rios sold the rancho to a partnership consisting of Daniel and James Blackburn and Lazare Godchaux (Hoover et al. 2002). The rancho lands were subsequently divided up, with the present-day city boundaries falling under the holdings of the Blackburn brothers and brother-in-law, Drury James, who purchased Godchaux's interest in the rancho (Bowler 2003). In 1886, Blackburn and James laid out a plan to subdivide lots surrounding the hotel and establish the town of Paso Robles. It was the goal of Blackburn and James to establish a town site that would be the most important stop between San Francisco and Los Angeles.

The Southern Pacific Railroad arrived in October 1886, marking an important turning point in the development of Paso Robles. Rail transportation gave the town the opportunity to expand significantly, and the opening of Paso Robles Inn provided respite to people previously unable to endure long stagecoach rides. Additionally, the arrival of the railroad allowed the town to expand its farming operations for long-distance shipping of crops, livestock, and byproducts. The region was particularly suited for growing almonds, walnuts, and grapes. In the late nineteenth and early twentieth centuries, European settlers planted vineyards and established the wine industry as a major component of the regional economy (Historic Resources Group 2010). By the 1940s, the population of Paso Robles had soared to over 3,000 residents and it was recognized as a resort community, attracting tourists from all over the world. Since the 1950s, the city has continued to expand and grow its population, while maintaining a diverse economy that includes agriculture and industry.

East of Paso Robles: Rancho Santa Ysabel, Huerhuero Creek, Dry Creek, and the Estrella River

The study area is in an area east of Salinas River that has been used for ranching and agriculture since the Mission period. Small settlements along Huerhuero/Dry Creek and Estrella River developed slowly throughout the nineteenth century, and expanded more rapidly in the twentieth century along with mechanized agriculture. Trails and roads in the area have historically served to convey people and commodities between the Central Valley, Salinas River, and maritime towns on the Pacific Ocean.

In 1844, the former mission land of Rancho Santa Ysabel was granted to Lieutenant Francisco Casimiro Arce by Governor Manuel Micheltorena. This land grant encompassed a 4-square-league tract of land on the eastern bank of the Salinas River, opposite Rancho Paso de Robles (Gudde and Bright 1998; Hoffman 1862). On June 10, 1846, Arce's contingent of the Mexican army was defeated by Ezekiel Merritt and other American settlers near Elk Grove, which emboldened the American insurgents to take Sonoma in the Bear Flag Revolt on June 14, 1846 (Kyle et al. 2002). Arce filed a claim to Rancho Santa Ysabel following the Mexican–American War, and was granted a patent in 1866 (State-Surveyor General 1886).

Rancho Santa Ysabel was purchased in 1886 by Chauncey Hatch Phillips' West Coast Land Company along with parts of Rancho Paso Robles and Rancho Huer-Huero to the south (Storke 1891). This purchase was later developed into present-day parts of Paso Robles and Templeton.

By the 1860s, General Land Office survey plats show a sparse network of roads and trails connecting El Camino Real at Paso Robles and Mission San Miguel with Rancho Santa Ysabel and settlements to the east in the vicinity of present-day Shimmin's Canyon Road and Cholame, and which continue over the Temblor Range to Tulare Lake and the Central Valley. This early system of trails and wagon roads likely followed previous paths and fords established by the Migueleño as they travelled between villages and hot springs at the Salinas River and Cholame, and on seasonal resource-gathering migrations to the oak woodland uplands. Indeed, mission records document kinship ties between the village at Cholame and the rancheria of *assii*, near present-day Lockwood (Gibson 1983).

Segments of the present Union Road are plotted on 1869 General Land Office survey plats. This road appears to have originated at Rancho Santa Ysabel to the southwest, and possibly connected to the "*camina*" (road) roughly depicted on the Rancho Santa Ysabel diseño as connecting with El Camino Real in the vicinity of Rancho Paso de Robles on the western bank of the Salinas River (University of California, Berkeley 184-[?]). The historical alignment of Union Road plotted on the survey plat parallels another east–west road to the south which is labeled "Trail from San Luis Obispo to Cholame Ranch," and both roads appear to have connected with San Miguel Road (approximate alignment of State Route [SR-] 46) to the east. An 1858 survey plat notes a spring, wheat field, "Indian cabins," and "Indian hut" at the intersection of SR-46 and Shimmin's Canyon Road. SR-46 continues east to the town and ethnographic village site of Cholame, and over the Temblor Range to Tulare Lake and the Central Valley.

The 1919 Paso Robles U.S. Geological Survey (USGS) 15-minute Quadrangle shows further development of this network of roads, which by then connected the well-developed city of Paso Robles, El Camino Real, the Southern Pacific Railroad, and the Salinas River to the west with the small settlements of Estrella, Bern, Union, Shandon, and Geneseo. At this time, rural residences were sparsely distributed along the roadways, leaving the landscape for ranching and agricultural uses. Several schools were in operation, including Dry Creek School, Estrella School, Phillips School, and Pleasant Valley School.

The Paso Robles Municipal Airport was originally built in 1942 for military use during World War II. It was taken over by the County in 1949, and was transferred to the City in 1973 (City of El Paso de Robles 2016).

By 1948, the USGS 7.5-minute Quadrangle shows much of the early road network incorporated into the modern county and state highway system, including the present alignments of SR-46, Union Road (former SR-41), Mill Road, and Estrella Road. Orchard and field croplands were present along Union Road at this time, while most of the surrounding lands were open space likely used for livestock grazing. While almonds, fruit, and field crops remain important agricultural products of the region, wine grapes were increasingly planted in the mid- and late-twentieth century. Hunter Ranch Golf Course was built in the early 1990s.

3.5.3.3 Cultural Resources Inventory Results

Record Search and Prehistoric and Historic Research Results

Results of CHRIS records searches indicate that 78 previous cultural resource studies have been conducted within the RSA, which encompasses a total area of approximately 10,540 acres within a 1-mile radius of the Estrella Substation ASA and a 0.5-mile radius of the 70 kV power line route. Of these studies, 21 include the current study area. Details pertaining to these investigations are presented in the CRTRs.

The CHRIS records search also identified 39 previously recorded cultural resources within the RSA. Of these resources, two isolated finds are plotted by the CCIC as being within the study area: P-40-038110, a historic isolate consisting of three porcelain ceramic dish sherds with an ornate floral design motif; and P-40-038111, a prehistoric chert biface fragment. Those outside the study area but within 0.5 mile include 23 built environment resources, 9 prehistoric sites, 3 prehistoric isolates, 1 historic site, and 1 historic isolate. However, all of the previously recorded resources within the project area are isolated objects and therefore do not qualify as historical resources under CEQA.

Researchers also conducted supplementary desktop research in order to identify potential cultural resources within the study area not on file with the CCIC. This research entailed consulting various sources, including, but not limited to, historical USGS topographic maps, General Land Office survey plats, historical aerial photography, Sanborn Fire Insurance Company maps, and local inventories.

Searches were also conducted for historical resources and landmarks listed on the CRHR on the California Office of Historic Preservation website and for resources listed on the NRHP using the National Park Service's focused digital asset search. No archaeological, historical, or built environment resources or TCRs were listed. No additional potential cultural resources were identified as a result of the supplementary desktop research. Full details of the background research are presented in the CRTRs.

Native American Outreach

As part of the effort to identify indigenous cultural resources within the study area, two requests were made of NAHC to search the Sacred Lands Files. The first request was made on March 29, 2016, and the second on April 5, 2016. On June 27, 2016, letters were sent to two contacts identified by the NAHC as possibly having knowledge of cultural resources within the study area. The letters requested any available information on resources in the project vicinity and invited general commentary or questions pertaining to the project.

Two informal tribal outreach meetings were held on August 23, 2016. Each of the two tribes identified by the NAHC (the Salinan Tribe of Monterey and San Luis Obispo Counties and the Xolon-Salinan Tribe) requested a separate meeting with representatives from the project proponents. The tribes noted the use of dry riverbeds for transportation, expressed concerns about the potential for the project to impact previously unrecorded prehistoric archaeological sites, and requested Native American monitoring during construction (in the case of the Xolon-Salinan Tribe, they specifically requested monitors when in sensitive areas, for example, near creeks and rivers). Both tribes requested copies of the technical reports and the project footprint map once completed.

Details regarding Native American outreach are included in the Cultural Resources Technical Reports prepared for the 70 kV power line and the substation. These reports, including figures depicting the final project footprint, will be sent to both tribes once finalized.

Buried Site Sensitivity Study Results

The study area is underlain in part by weakly indurated Pliocene and Pleistocene valley fill belonging to the Paso Robles formation (Qtp), an extensive stratigraphic unit that originally covered most of the southern Salinas Valley area (Dibblee and Minch 2004; Durham 1974). The Paso Robles formation, which accumulated as a result of fluvial and lacustrine deposition following the recession of a large Tertiary sea, is composed mainly of sandstone and conglomerate, with some mudstone, shale, and limestone also present (Durham 1974). It is exposed in the eastern portion of the study area, in a large patch southwest of Huerhuero Creek, adjacent to the Dry Canyon channel, in small areas east of the Salinas River, as well as along much of the existing San Miguel-Paso Robles 70 kV power line segment (Dibblee and Minch 2004). Valley and stream channel alluvium in the southern Salinas Valley consists of sand and gravel dating to the Holocene (Dibblee and Minch 2004).

The remainder of the study area is veneered in surficial alluvium dating to the late Pleistocene (Qoa) and Holocene (Qa/Qg). Quaternary valley and stream channel alluvium, composed of Holocene-aged sand and gravel deposits, occurs in the vicinity of Huerhuero Creek and the Salinas River. Older terrace surfaces, which occur within the transmission line alignment immediately east of Huerhuero Creek and extending south from the creek's confluence with the Salinas River and within the northern portion of the reconductoring segment, contain gravel and sand deposits dating to the Late Pleistocene (Dibblee and Minch 2004).

Land surfaces within the study area range in terms of both age and depositional environment, and therefore have varying potential to contain buried sites. Pliocene/Pleistocene-aged landforms belonging to the Paso Robles formation pre-date human occupation in the region and therefore have very low potential to contain deeply buried, intact, subsurface cultural materials. In addition, land surfaces associated with the Paso Robles formation are typically hillslopes containing shallow residual deposits derived from weathered bedrock, with little to no sedimentary accumulation resulting from alluvial or aeolian processes. Depending on hillslope positioning, sites associated with the Paso Robles formation may also be subject to erosional disturbances.

Pleistocene-aged alluvial terraces in the study area likewise have low potential to contain buried archaeological sites. Pleistocene terrace surfaces pre-date the majority of human occupation in the region, and are relatively stable depositional environments not undergoing high rates of erosion or deposition. Holocene-aged valley floor and stream channels in the study area have moderate potential to contain buried archaeological sites due to the fact that these landforms date to or post-date the period of human occupation in the region, and due to the active nature of sedimentary deposition in these settings.

In summary, most of the study area has very low to low potential to contain buried archaeological sites. Areas containing Holocene-aged valley floor and stream channel alluvium, confined to the vicinity of Dry Canyon Channel, the Salinas River, and Huerhuero Creek, have moderate sensitivity for buried archaeological resources.

Archaeological Survey Results

Three previously undocumented archaeological sites and seven isolated artifacts were identified within the ASA during the intensive pedestrian survey. Of the archaeological sites, one is prehistoric and two are historic period resources. All of the isolated finds are lithic artifacts, including one contracting stem projectile point and six debitage fragments. As noted above, two previously identified isolates are plotted by the CCIC as being within the study area: P-40-038110, a historic isolate consisting of three China ceramic dish sherds with an ornate floral design motif, and P-40-038111, a prehistoric chert biface fragment. Neither of the previously recorded isolates were relocated during archaeological field surveys.

Isolated artifacts lack the context that is afforded to artifacts within an archaeological site, such as contemporary and associated artifacts, ecofacts, and features. Without this context, isolates typically lack the potential to yield information important in prehistory, the CRHR Criterion (4) under which archaeological resources are most often found to be significant. As such, isolates are not eligible for the CRHR. Further, isolated artifacts do not constitute unique archaeological resources, as they do not contain information needed to answer important scientific research questions; they do not have a special and particular quality such as being the oldest of its type or the best available example of its type; and are not directly associated with a scientifically recognized important prehistoric or historic event or person. Consequently, such resources are not considered historically significant under CEQA, and no further consideration is warranted.

Additional details pertaining to the archaeological resources identified during field efforts are provided below and summarized in Table 3.5-2, Resources Identified during Archaeological Survey.

Table 3.5-2. Resources Identified during Archaeological Survey

Trinomial or Temporary Designation	Resource Type	Time Period	Description	CRHR Eligibility
36052-S-001	Historic-era site	Early twentieth century	Well and utility pole	Potentially eligible
36052-S-002	Historic-era site	Early twentieth century	Trash dump	Potentially eligible
36052-S-003	Prehistoric lithic scatter	Prehistoric	Low-density lithic scatter with sparse shell fragments	Potentially eligible

Table 3.5-2. Resources Identified during Archaeological Survey

Trinomial or Temporary Designation	Resource Type	Time Period	Description	CRHR Eligibility
36052-ISO-002	Prehistoric isolate	Prehistoric	Monterey chert biface	Not eligible
36052-ISO-003	Prehistoric isolate	Prehistoric	Monterey chert core	Not eligible
36052-ISO-004	Prehistoric isolate	Prehistoric	Franciscan chert biface	Not eligible
36052-ISO-005	Prehistoric isolate	Prehistoric	Monterey chert contracting stem projectile point	Not eligible
36052-ISO-006	Prehistoric isolate	Prehistoric	Monterey chert primary flake	Not eligible
36052-ISO-007	Prehistoric isolate	Prehistoric	Monterey chert multidirectional core	Not eligible
36052-ISO-008	Prehistoric isolate	Prehistoric	Monterey chert interior flake	Not eligible

36052-S-001 is a historical well feature and utility pole with remnant glass insulators. The well feature is made up of two original steel pipes, one with a 12.75-inch diameter and the other with a 6-inch diameter. The larger steel pipe was later modified with a 1.5-inch polyvinyl chloride (PVC) tie-in and copper wiring with a *terminus post quem* (date after which) of 1970. The steel pipe elements are encased within a concrete slab collar that measures 40 × 34.5 inches wide × 1 foot thick. The historic cedar utility pole measures approximately 25 feet high and is located 9 feet southwest of the well. It is tied into a modern utility pole with a new transformer along Union Road. Both features appear to date to the first half of the twentieth century and have been highly disturbed by modern construction and general land use. 36052-S-001 has not been evaluated for CRHR eligibility, thus it is regarded as potentially eligible.

36052-S-002 is a trash dump consisting of a mixed redeposit of historic and modern refuse and disused farm equipment. It measures 50 feet from east to west, by 20 feet from north to south. Refuse is largely confined to a push pile measuring 35 feet × 20 feet × 10 feet high, which appears to have been created with the original grading or later regrading of the roadway. It may also be the product of multiple grading episodes, as the mixed nature of its artifacts suggest. Modern refuse appears to be confined to the top and roadway-facing portions of the pile, suggesting incidental disposal of refuse at the site during later periods. The original date of deposition and primary context of the dump is unknown. The pile contains historical refuse including stove elements and car parts dating to the 1930s, along with plastic fragments dating to the 1980s, bottle glass shards, galvanized sheet metal, structural rubble, and other debris. In sum, the refuse pile contains a mix of more than 100 individual artifacts with dates spanning at least a 60-year period. As with 36052-S-001, 36052-S-002 has not been evaluated for CRHR eligibility, thus it is regarded as potentially eligible.

36052-S-003 is a low-density prehistoric lithic and shell scatter consisting of approximately 30 Monterey chert flakes and three marine shell fragments, including fragments of black turban snail (*Tegula funebralis*) and Pismo clam (*Tivela stultorum*). Cultural material was distributed across a horizontal space of approximately 165 meters (north/south) by 45 meters (east/west). Profiles exposed in cliff-face on the south and western sides of the site did not show any indication of subsurface deposits or features, though rodent burrows further inland did expose some flakes. The horizontal distribution of lithic debitage indicates some clustering near the residence and unnamed drainage on the northeast end of the site, as well as a lighter density concentration in the area of row crops on the southeast end. Lithic constituents represent multiple stages of tool production, with primary reduction flakes predominating. No formed tools or formal artifacts were identified within the site. Historic agricultural disturbances such as plowing and some residential development including roadway grading have impacted the site to some degree. Considerable erosion damage is also apparent along the western edge of the site, particularly where the unnamed drainage meets the edge of the terrace, as evidenced by the concrete riprap that has been placed at the location. 36052-S-003 has not been evaluated for CRHR eligibility, thus it is regarded as potentially eligible.

Historic Built Environment Survey Results

Eleven historical built environment resources were identified within the BESA during field investigations (see Figure 3.5-2, Built Environment Resources Map). These resources include buildings, structures, and objects constructed over 45 years ago. All 11 resources were recorded on DPR 523 Series forms and evaluated for federal, state, and local eligibility. Among the resources identified are three vineyard properties dating to the early twentieth century, properties containing early-to-mid twentieth century family residences and associated outbuildings, and mid-to-late twentieth century transmission lines. One of the residential properties, the Johnson House (2965 Union Road), is recommended eligible for listing in the CRHR under Criteria 1 and 3. The other 10 built environment resources are recommended ineligible for listing in the CRHR. Details on the built environment resources identified during survey work are provided in Table 3.5-3, Built Environment Resources.

Table 3.5-3. Built Environment Resources

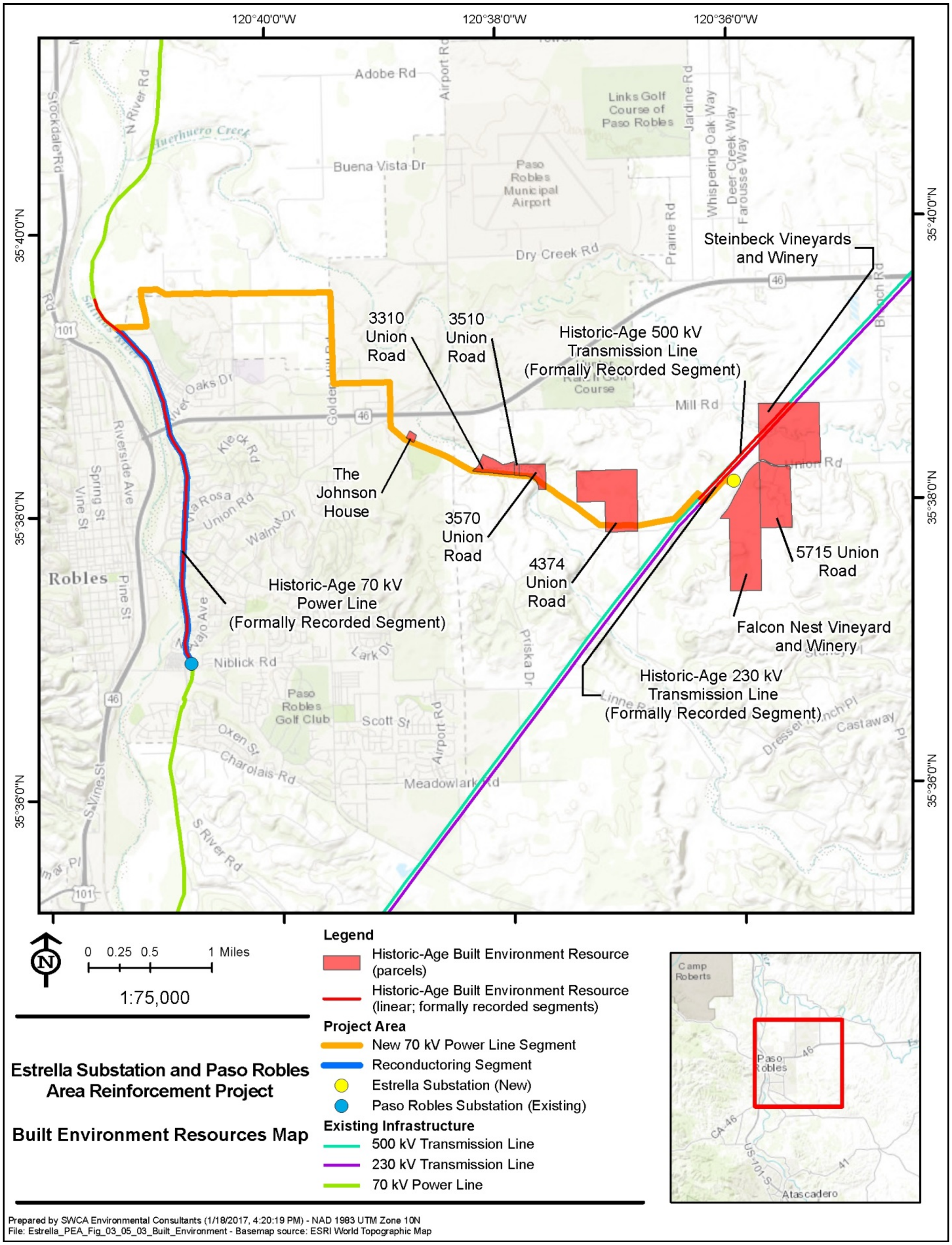
Trinomial or Temporary Designation	Resource Type	Built Date	Description	CRHR Eligibility
Johnson House (2965 Union Road)	Historic-era residential property	Circa 1890	Late-nineteenth century masonry residential building	CRHR Eligible
Steinbeck Vineyards and Winery	Historic-era vineyard property	Early twentieth century	Vineyard property	Not eligible
Falcon Nest Vineyard and Winery	Historic-era vineyard property	Early twentieth century	Vineyard property	Not eligible

Table 3.5-3. Built Environment Resources

Trinomial or Temporary Designation	Resource Type	Built Date	Description	CRHR Eligibility
3310 Union Road	Historic-era residential and agricultural property	1940	Property containing various residential and agricultural buildings	Not eligible
3510 Union Road	Historic-era residential property	1948	Property containing two single-family residences and various outbuildings	Not eligible
3570 Union Road	Historic-era residential and agricultural property	1962	Property containing three residences and various outbuildings	Not eligible
4374 Union Road	Historic-era agricultural property	1920	Property containing various residential and agricultural buildings	Not eligible
5715 Union Road	Historic-era agricultural property	Early twentieth century	Vineyard property	Not eligible
Existing 230 kV Transmission Line	Historic-era transmission line	1962	Transmission Line	Not eligible
Existing 500 kV Transmission Line	Historic-era transmission line	1971	Transmission Line	Not eligible
Existing 70 kV Power Line	Historic-era power line	Circa 1954	Wood-pole transmission line	Not eligible

The Johnson House (2965 Union Road) is a two-story masonry residence that is situated on a flat lot just north of Union Road. Square in plan, it sits on a concrete foundation and is capped by a corrugated metal hipped roof with a centrally located brick chimney. The exterior cladding features a running bond pattern that is punctuated by long arched window openings along the ground level with smaller rectangular windows above, underneath the roof eave. Nearly all of the windows appear to have been replaced with varying wood-framed types, with many of the windows on the larger arched openings located with infill pieces of plywood. Three concrete steps lead to the primary entry, centrally located on the north elevation. A secondary entrance is located on the west elevation towards the northern corner, where remnants of a former porch are also visible. Immediately to the north of the brick building is a wood barn with a square tower that features two shed roof extensions to the north and west. A second single-story, single-family residence is located on the same parcel to the northwest of the subject building; however, because it was constructed in 1977, it was not recorded or evaluated as part of the current survey. The Johnson House is recommended eligible for listing in the CRHR under Criteria 1 and 3 as the ca. 1890 masonry residence reflects special elements of the historical and architectural development of Paso Robles and embodies the distinctive characteristics of a style, type, and method of construction.

Figure 3.5-2. Built Environment Resources Map



Steinbeck Vineyards and Winery is a vineyard and winery located along Union Road in unincorporated San Luis Obispo County. The current operation began in 1982 and now comprises approximately 400 acres spread across four parcels. Much of this acreage was purchased and developed in the mid-1990s (including buildings and vineyards within APNs 015-053-008, 015-053-010, and 015-053-011), and, as a result, the current survey and evaluation effort focuses on the original 156-acre parcel owned by the Ernst/Steinbeck families beginning in 1925 (APN 015-053-012). Included within this parcel are three buildings that date to 1921, including a residence and two outbuildings, and three additional buildings and structures that were constructed beginning in the late 1980s. All of the buildings are clustered in a small complex, which is accessed by way of a paved driveway that runs approximately 1,000 feet north from Union Road. The Steinbeck Vineyards and Winery does not appear eligible for listing in the CRHR under any applicable criteria.

Falcon Nest Vineyard and Winery is a vineyard and winery that occupies an approximately 145-acre parcel along the southern side of Union Road. Vineyards cover the northern half of the irregularly-shaped, sloping parcel, while the southern half is largely undeveloped. Buildings on the property were constructed between 1962 and 2010 and are located off an unpaved dirt road that leads east from Union Road; these include a residence, tasting room, large banquet facility, an outdoor kitchen, and gazebo. The buildings primarily appear to be wood construction with corrugated metal or asphalt shingle roofs. Because access to the privately-owned property was not authorized at the time of the field survey, observations were made from the public right-of-way and through historic and current aerial photographs. The Falcon Nest Vineyard and Winery does not appear eligible for listing in the CRHR under any applicable criteria.

3310 Union Road is a residential and agricultural property located in unincorporated San Luis Obispo County, east of Paso Robles. Bound by the dry bed of Huerhuero Creek to the north and Union Road to the south, the irregularly shaped parcel contains two residential buildings and a number of agriculture-related outbuildings. The majority of the buildings are clustered in a small complex towards the western end of the parcel, while one of the residential buildings is located to the east. 3310 Union Road does not appear eligible for listing in the CRHR under any applicable criteria.

3510 Union Road is a residential property on a flat rectangular parcel fronting Union Road to the south and bordered by the dry riverbed of Huerhuero Creek to the north. It contains two detached, single-family residences—3510 Union Road to the west and 3530 Union Road to the east. Constructed in 1948, 3510 Union Road is a rectangular Ranch-style residence that is rectangular in plan. The building is constructed of concrete masonry units and capped by a side-gable, asphalt-shingle roof with a central gable dormer. The main entry is slightly off center to the east and a large garage door is located on the western end of the elevation. Windows are aluminum sliding windows and there are metal awnings located above the windows on the east elevation. Located to the east is 3530 Union Road, a one-story, single-family residence that was constructed in 1964. Square in plan, the building is clad in vertical wood boards and is capped by a hipped roof sheathed in asphalt shingles. The main entry is located in the western corner of the south elevation. Two aluminum sliding windows, one large and one small, are located to the east of the entry. A single door with glass panes and two sliding aluminum windows are present on the east elevation. The property is enclosed by a wood fence and there are a number of small ancillary buildings to the north, including a detached garage and several small storage buildings. 3510 Union Road does not appear eligible for listing in the CRHR under any applicable criteria.

3570 Union Road is a residential property located on an L-shaped parcel situated between Union Road to the south and Huerhuero Creek to the north. The property contains a primary residence and multiple outbuildings located at the rear (north) of the property. Records on file with the County Assessor indicate the primary residence was constructed in 1962. It is located at the southwest corner of the parcel and is a one-story rectangular building with a side gable roof and is clad in wood siding of various sizes. The building has a large fixed window and two smaller sliding windows on the south elevation and two smaller sliding windows and one long three-bay rectangular window on the north elevation. The east and west elevations each have a single personal door, and there is a concrete patio to the east and north, which is enclosed by a chain-link fence. 3570 Union Road does not appear eligible for listing in the CRHR under any applicable criteria.

4374 Union Road is an agricultural and residential property that occupies an L-shaped parcel fronting Union Road. Currently functioning as a vineyard, the property features two, detached, single-family residences and various agriculture-related outbuildings and structures. The residential building located towards the southern end of the property was constructed in 1920, according to records on file with the County Assessor. L-shaped in plan, the house has a side-end gabled roof and a chimney in the southern corner of the east elevation. The windows appear to have been replaced since the residence was originally constructed. Located to the northwest is a second single-family residence that was constructed in 1989. Two stories in height, the building features a multi-level roof and an attached one-story garage. Between the two residences are a number of agricultural buildings, such as barns and other support structures. Because access to the privately-owned property was not authorized at the time of the field survey, observations were made from the public right-of-way and through historic and current aerial photographs. 4374 Union Road does not appear eligible for listing in the CRHR under any applicable criteria.

5715 Union Road is an agricultural property located on a sloping 83-acre parcel, which includes two distinct building complexes. Closest to Union Road, east of an unpaved road, is a residence that was initially constructed in 1954. It features an irregular plan, the result of a 1994 addition, and is capped by a complex multi-level roof that extends to cover a wrap-around porch on the northwestern corner of the house. Immediately to the northeast of the residence is a rectangular storage building with a gable roof. Southwest of the residential complex up a steeply sloped hill is a tasting room and barrel storage building, which were both constructed in 2006. The tasting room is a rectangular building with an end gable metal roof with a gable roofed monitor. The building has a stone masonry appearance and the main entry is rounded wood double doors. A wood trellis occupies the space between the tasting room and the barrel storage building, located immediately to the west. Set perpendicular to the tasting room, the barrel storage building is a two-story rectangular metal building. Because access to the privately-owned property was not authorized at the time of the field survey, observations were made from the public right-of-way and through historic and current aerial photographs. 5715 Union Road does not appear eligible for listing in the CRHR under any applicable criteria.

Existing 230 kV Line is a PG&E electrical transmission line located on the southeastern side of the Estrella Substation alignment. It includes lattice steel structures with cylindrical concrete foundations at the base of each leg support. They measure approximately 30 feet square at their bases. The existing 230 kV line was constructed circa 1962. The existing 230 kV line does not appear eligible for listing in the CRHR under any applicable criteria.

Existing 500 kV Line is a PG&E electrical transmission line running parallel with the existing 500 kV line on the northwestern side of the Estrella Substation alignment. It includes lattice steel structures with cylindrical concrete foundations at the base of each leg support. The footprint of the tower bases measures approximately 20 × 60 feet. The existing 500 kV line was constructed circa 1971. The existing 500 kV line does not appear eligible for listing in the CRHR under any applicable criteria.

Existing 70 kV Power Line is a PG&E electrical power line running north–south immediately east of Salinas River. The line consists of three conductors connected by wood poles, typically spanning 200 to 400 feet. Ranging in height from 50 to 80 feet, the poles feature a variety of arm configurations with both wood and metal cross arms, and post-, suspension-, and strain-type insulators consisting of porcelain disks. Some poles have guy wires to provide additional stability, as well as small wood cross arms situated midway down the pole, which support local, lower voltage transmission lines. The existing 70 kV power line was constructed in the mid-1950s. The existing 70 kV power line does not appear eligible for listing in the CRHR under any applicable criteria.

3.5.3.4 Paleontological Resources Inventory Results

Geologic Setting

The 70 kV power line route and Estrella Substation are located within the central Coast Ranges geomorphic province, which is bounded to the north by the Klamath Mountains, to the east by the Great Valley, and to the south by the Transverse Ranges (Norris and Webb 1990). The Coast Ranges occupy the Pacific Coast of California from the northern border with Oregon to a point just north of Santa Barbara, a distance of around 590 miles (Norris and Webb 1990). Mountains in the Coast Ranges vary from 2,000 to 6,000 feet above sea level and trend north-west, roughly following the San Andreas Fault (Norris and Webb 1990).

The rocks of the Coast Ranges province are a thick series of Mesozoic and Cenozoic sedimentary strata overlying either the bedrock granites in the Salinian block or the metamorphosed Franciscan complex (Harden 2004). During the Pliocene epoch (2.6–5.3 Ma), the sea had withdrawn from most of the Coast Ranges and erosion of the uplands onto valley floors was prominent by the Pleistocene epoch (2.6 Ma) and continues today (Norris and Webb 1990). Coincident with the withdrawal of the sea was the initiation of the Coast Ranges orogeny, creating the topography observed today (Harden 2004).

According to mapping by Dibblee and Minch (2004a, 2004b), the 70 kV power line route is underlain by four geologic units: Holocene alluvial gravel, sand, and clay; Holocene stream alluvial sand and gravel (0.01 Ma); Pleistocene older alluvial sediments (0.01–2.6 Ma); and Pleistocene to latest Pliocene Paso Robles formation (2.6–3.6 Ma). Figure 3.5-3, Geologic Units in the Project Area, illustrates the geologic formations in the area of Estrella Substation and the power line route.

Records Search

A records search request was submitted to the University of California Museum of Paleontology and the Natural History Museum of Los Angeles County for the project study area. While neither institution has records of fossil localities directly within the 70 kV power line route, both museums record vertebrate fossil localities in the vicinity. The nearest fossil locality to the study area is less than 1 mile away, in a wash off Dry Canyon between SR-46 and Union Road, where the Natural History Museum of Los Angeles County recovered fossil specimens of stickleback fish (*Gasterosteus*), giant tortoise (*Geochelone*), and horse (Equidae) in the Paso Robles formation (Qtp) (McLeod 2016). Two other fossil localities are just over 1 mile away from the power line route (McLeod 2016). Both sites occur in Quaternary older alluvium (Qoa). One of these sites produced fossil specimens of mammoth (*Mammuthus*), horse (*Equus occidentalis*), and bison (*Bison antiquus*), while the other produced lizard (*Lacertilia*) and mammoth (*Mammuthus*) (McLeod 2016). Within approximately 15 miles of Estrella Substation, the University of California Museum of Paleontology has four known fossil localities (Finger 2016) and the Natural History Museum of Los Angeles County has two additional localities (McLeod 2016). All of these localities occur in either Quaternary older alluvium (Qoa), which outcrops just to the southwest of the project study area, or the Monterey formation, which is not observed at the surface in the study area.

Paleontological Survey Results and Geotechnical Data

The field inspection did not discover any paleontological resources or any paleontologically sensitive geologic formations on the ground surface in the substation footprint, due to the nearly complete coverage of the area by agricultural and residential development. Traverses across the study area did not observe any geologic features. Survey points identified along roadcuts and streambeds did allow surveyors to gather basic information about the subsurface geology in the study area, however. In general, non-sensitive geologic units such as the Holocene alluvium (Qa) and surface soils range greatly in thickness, from under 1 foot to 6 feet. Three sites of note were found which allowed interpretation of the subsurface geology. The first of these is in the northwestern terminus of the 70 kV power line route and consists of a tall cut bank along River Road (approximately 8 meters). This bank shows surface soils around 2 feet thick overlying a loosely consolidated sand and gravel deposit with numerous white pebble clasts, consistent with the Paso Robles formation (Qtp). The second site is just to the northeast of the southeastern terminus of the 70 kV power line route, where a cut bank in a dry streambed exposes around 30 feet of subsurface geology, showing approximately 5 to 8 feet of soil formation and younger alluvium overlying and grading into the underlying strata. The third site is just to the east of Estrella Substation, where a cut bank in a dry streambed, which runs along the northern boundary of Estrella Substation, exposed around 30 feet of subsurface geology. The exposure shows approximately 5–8 feet of soil formation and younger alluvium overlying and grading into the underlying strata. Comparison of this subsurface strata to the geologic literature indicate the likely presence of Quaternary older alluvium (Qoa) overlying the Paso Robles formation (Qtp). The third site is very near the substation (under 0.5 mile) and mapped as Quaternary alluvium on the surface (Dibblee and Minch 2004), and it is reasonable to predict a similar subsurface geology may be found within Estrella Substation, as well as the south eastern portion of the 70 kV power line route. Figure 3.5-5, Geologic Units in the Project Area, illustrates the geologic formations in the area of Estrella Substation and the power line route.

Geotechnical data derived from borings within the study area are consistent with the observations of the subsurface geology from just outside of the study area. Borings identified 8-12 inches of topsoil overlying sands, clayey sands, clays, and silts that are consistent with the lithologies of the Paso Robles formation as well as older Quaternary alluvium. Geotechnical data derived from borings taken along the 70 kV power line route indicate the thickness of the unconsolidated topsoils ranges from 3 to 5 feet.

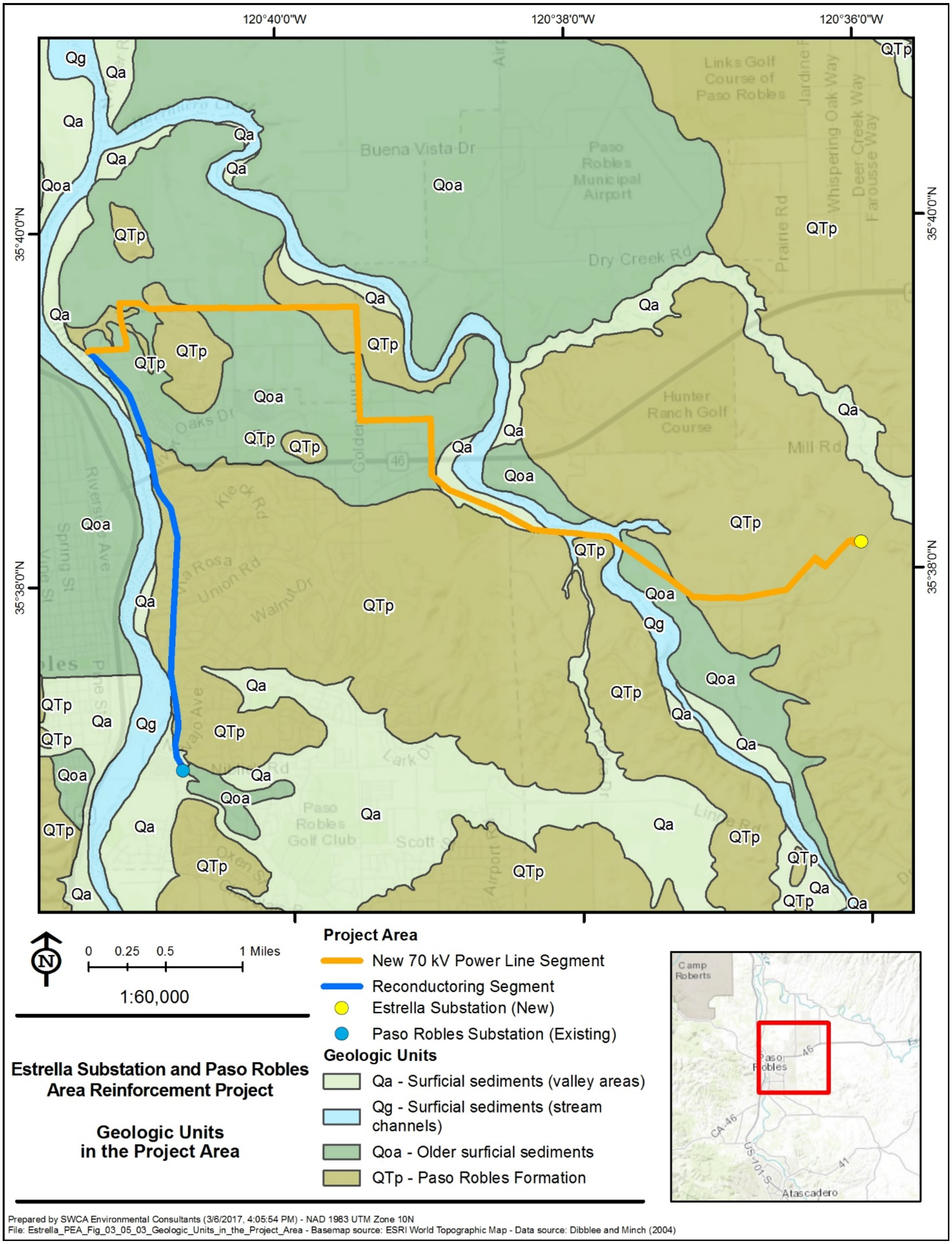
Paleontological Sensitivity Study Results

The literature and museum records searches and the ground survey enable the geologic units in the study area to be assigned PFYCs. Results are shown in Table 3.5-4, Paleontological Sensitivity of Geologic Units in the Project Area. Both alluvial units (Qa and Qg) are Holocene and therefore too young to preserve fossils, resulting in PFYC rankings of Low (Class 2). Both the older alluvium (Qoa) and the Paso Robles formation are known to be fossiliferous and have produced scientifically significant localities in the past. Based on the PFYC system developed by BLM (2007), both these units should be classified as Class 4b, high with ground cover.

Table 3.5-4. Paleontological Sensitivity of Geologic Units in the Project Area

Geologic Unit	Age	Potential Fossil Yield Classification	Location in Project Area
Alluvial gravel, sand, and clay (Qa)	Holocene (0.01 Ma–present)	Low – Class 2	Exposures along the central portion of the 70 kV power line route, from SR-46 south paralleling Union Road and Huerhuero Creek.
Stream alluvial gravel and sand (Qg)	Holocene (0.01 Ma–present)	Low – Class 2	Exposure in the streambed paralleling Union Road and Huerhuero Creek from Kit Fox Lane to the sharp southern turn in Union Road.
Quaternary older alluvium (Qoa)	Pleistocene (2.6–0.01 Ma)	High – Class 4b	Sediments occur primarily in the northern portion of the 70 kV power line route, with a small occurrence in the southeastern portion along Huerhuero Creek.
Paso Robles formation (Qtp)	Pleistocene–late Pliocene (3.6–2.6 Ma)	High – Class 4b	Outcrops in the northern portion of the 70 kV power line route near its start at River Road and near the termination of Buena Vista Drive; the majority of the southwestern end of the 70 kV power line route.

Figure 3.5-3. Geologic Units in the Project Area



3.5.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts related to cultural and paleontological resources derived from Appendix G of the CEQA Guidelines. They also provide APMs to reduce impacts and assess potential project-related construction and operational impacts on cultural and paleontological resources.

3.5.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts to cultural and paleontological resources were evaluated for each of the criteria listed in Table 3.5-1.

3.5.4.2 Applicant-Proposed Measures

The APMs described in Table 3.5-5, Applicant Proposed Measures for Cultural and Paleontological Resources, are intended to avoid or minimize potential impacts to cultural and paleontological resources, ensuring impacts remain less than significant.

Table 3.5-5. Applicant Proposed Measures for Cultural and Paleontological Resources

APM No.	Description
	CULTURAL AND PALEONTOLOGICAL RESOURCES
APM CUL-1	**Retain a Qualified Cultural Principal Investigator.** A Cultural Resources Principal Investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, will be retained to ensure that all APMs related to archaeological and historical resources are properly implemented. The Principal Investigator may either be on-staff with project proponents or an outside consultant, as appropriate for the project's needs, and will serve in a strictly supervisory capacity, overseeing crews charged with the application of the APMs in the field.
APM CUL-2	**Avoidance.** The project is designed to avoid impacts to potentially CRHR-eligible and CRHR-eligible resources identified within the study area. Potentially eligible (i.e., not evaluated) resources in the study area in include archaeological sites 36052-S-001, 36052-S-002, and 36052-S-003. In addition, the Johnson House was evaluated for the project and is considered CRHR-eligible (pending CPUC concurrence). To avoid indirect and direct impacts to 36052-S-001, 36052-S-002, 36052-S-003, a 50-foot buffer will be established around the boundary of each respective resource and designated as Environmentally Sensitive Areas. If work within the 50-foot buffer cannot be avoided, then monitoring will be required. Methods of Environmentally Sensitive Area delineation may include, as applicable, flagging, rope, tape, or fencing. The Environmentally Sensitive Areas should be clearly marked on all pertinent construction plans. Construction activities will avoid impacts to the Johnson House entirely.

Table 3.5-5. Applicant Proposed Measures for Cultural and Paleontological Resources

APM No.	Description
APM CUL-3	**<u>Inadvertent Discoveries</u>.** In the event that unanticipated cultural materials are encountered during any phase of construction, all construction work within 50 feet of the discovery will cease and the Principal Investigator will be consulted to assess the find. Construction activities may continue in other areas. Avoidance of resources is the preferred option. However, if avoidance of a resource is not feasible, project proponents will assess the find for significance, as defined by PRC Section 21083.2, through implementation of Phase II investigations. If resources are found to be significant, a detailed archaeological treatment plan, including Phase III data recovery, will be developed and implemented by a qualified archaeologist.
APM CUL-4	**<u>Discovery of Human Remains</u>.** If human remains are discovered, all work within 50 feet of the discovery will cease and the Environmental Inspector or Construction Supervisor will notify the County Coroner immediately. State of California Health and Safety Code Section 7050.5 stipulates that no further disturbance will occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The lead cultural resource managers on staff with the project proponents (depending on the location of the remains) and CPUC will also be notified of the find immediately. If the human remains are determined to be prehistoric, the County Coroner will notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). The MLD will complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.
APM CUL-5	**<u>Tribal Construction Monitoring</u>.** If it becomes necessary to work within 50 feet of Dry Creek, Huerhuero Creek, and the Salinas River, or known prehistoric archaeological sites, a tribal monitor will be selected by CPUC and retained to conduct full-time monitoring of initial ground-disturbing activities (i.e., initial excavation and grading) in areas with high potential to discover prehistoric archaeological resources.
APM CUL-6	**<u>Archaeological Construction Monitoring</u>.** If it becomes necessary to work within 50 feet of Dry Creek, Huerhuero Creek, and the Salinas River, or known prehistoric or historic sites, an archaeological monitor, approved by the Principal Investigator, will be retained to conduct monitoring of initial ground-disturbing activities (i.e., initial excavation and grading) in areas with high potential to discover prehistoric or historic archaeological resources.
APM PALEO-1	**<u>Retain a Qualified Paleontological Principal Investigator</u>.** A Paleontological Resources Principal Investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to ensure that all APMs related to paleontological resources are properly implemented.
APM PALEO-2	**<u>Inadvertent Discoveries</u>.** If paleontological resources are discovered during construction activities, the following procedures will be followed: • Stop work immediately within 50 feet. • Contact the designated lead on staff with the project proponents (depending on the location of the resource) immediately. The designated lead will notify CPUC. • Protect the site from further impacts, including looting, erosion, or other

Table 3.5-5. Applicant Proposed Measures for Cultural and Paleontological Resources

APM No.	Description
	human or natural damage. • The Principal Investigator will evaluate the discovery and make a recommendation to CPUC as to whether or not it is a unique paleontological resource. CPUC will have 24 hours to respond to this recommendation, and the lack of response within 48 hours will indicate concurrence with the recommendation. • If the resource is not a unique paleontological resource, then it will be documented appropriately, and no further measures will be required. • If the resource is a unique paleontological resource, the Principal Investigator, in consultation with the project proponent, will recommend resource-specific measures to protect and document the paleontological resource, such as photo documentation and avoidance or collection. CPUC will have 24 hours to respond to these measures, with no response within 48 hours indicating concurrence. Unique resources inadvertently discovered during augering will be documented as indicated above, but, due to safety concerns, any remaining resource below ground will not be salvaged. If the resource can be avoided, then no CPUC concurrence will be necessary. • If collection is necessary, the fossil material will be properly prepared in accordance with the project proponents, Society of Vertebrate Paleontology guidelines, and CPUC requirements, and/or curation at a recognized museum repository. Appropriate documentation will be included with all curated materials. • Any material discovered on private land is the property of the landowner and permission must be granted by the landowner for the material to be removed and curated Once the resource is determined to be not unique, or appropriate treatment is completed as described above, work may resume in the vicinity.
APM PALEO-3	**<u>Paleontological Construction Monitoring</u>.** Paleontological monitors, approved by the Paleontological Resources Principal Investigator, will be retained to conduct monitoring of the initial ground-disturbing activities as described below. Monitoring requirements vary with the sensitivity of the mapped sediments and the type of construction activity, as follows: 1. *Estrella Substation:* High Surface Sensitivity – project areas mapped as older alluvium (Qoa) or Paso Robles formation (Qtp): - In locations where the ground has been previously disturbed by agricultural or other development, monitoring is required only when excavations or grading exceed the depth of previous disturbance. For augering within the substation site, the proponents will follow the protocol identified below under Power Line. - In locations where no previous disturbance exists, full-time monitoring is required when excavations, grading, or trenching exceeds 3 feet in depth. During monitoring, a qualified paleontological monitor, as determined by the Principal Investigator, will observe construction activity as well as check any spoils piles to watch for the appearance of fossil resources. Low Surface Sensitivity – project areas mapped as Holocene alluvium (Qa or Qg) – no fossils at the surface: - No monitoring is required for surface work.

Table 3.5-5. Applicant Proposed Measures for Cultural and Paleontological Resources

APM No.	Description
	- Should ground disturbance exceed the depth of the Holocene sediments (estimated to be 5 feet), monitoring is required as described above for high sensitivity. 2. *Power Line:* High Surface Sensitivity – project areas mapped as older alluvium (Qoa) or Paso Robles formation (Qtp): - Full time monitoring will not be required along the power line route. - Augering that uses a drill bit 3 feet, or less, in diameter will not be monitored. Small-diameter drill bits generally result in pulverized rock by the time they reach the surface, so any fossils contained within will not be identifiable. Larger-diameter drill bits (i.e., greater than 3 feet) often bring up intact chunks of rocks that may contain identifiable and scientifically important fossils (particularly microfossils). All large angled tubular steel pole locations will be monitored. - During work, a portion of the excavated material will be examined visually and through screen-sifting, if necessary. If screening is necessary, then a sample of spoils may be collected and processed either on-site or off-site as work on the pole placement proceeds. Should unique fossil material be discovered, it may be recorded and collected if the resource is determined by the Principal Investigator to be worth salvaging. Otherwise it will be recorded and included in the final monitoring report. Should it be determined that the type of auger or drill being used renders monitoring not useful (i.e., materials come out of the hole in a pulverized powder or a silty mud), monitoring will be discontinued. - Because it is extremely unsafe and impractical to excavate fossils from within an auger bore or drill hole, and to do so would unnecessarily disturb fossils further, no effort will be made to collect buried fossils indicated in spoils materials. However, the location and nature of the materials identified will be recorded, and this will be documented in the final monitoring report and reported to repositories as appropriate. These measures are based on the currently available data. As construction proceeds and additional data becomes available, the Principal Investigator could revise these measures with CPUC concurrence. Should monitors identify fossil remains during the course of construction, APM PALEO-2 will be implemented. All monitoring activities will be documented on daily logs. Monitoring logs and reports will include the activities observed, geology encountered, description of any resources encountered, and measures taken to protect or recover discoveries. Photographs and other supplemental information will be included as necessary. A final monitoring report will be developed to document locations, methods, and results of monitoring.
APM PALEO-4	**<u>Fossil Recovery</u>.** In the event that unique paleontological resources are encountered, protection and recovery of those resources may be required. The Principal Investigator will oversee the recovery effort in consultation with the project proponents (depending on the location of the resource), CPUC, and property owners as appropriate. The Principal Investigator may designate a paleontologist to implement the recovery, preparing specimens for identification and preservation, and completing all field documentation in accordance with the project proponents, Society of Vertebrate Paleontology

Table 3.5-5. Applicant Proposed Measures for Cultural and Paleontological Resources

APM No.	Description
	guidelines, and CPUC requirements, and/or curation at a recognized museum repository. If fossil is not accepted by a museum for curation, then project proponents will have fulfilled their obligation for fossil recovery.

3.5.4.3 Potential Impacts

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, construction and operation of approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The route for the future distribution feeders is uncertain and the feeders are expected to follow existing roadways and previously disturbed areas. No significant impacts to cultural and paleontological resources are anticipated at this time as a result of this future project.

Potential project impacts related to cultural and paleontological resources were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase.

Project impacts on cultural resources are defined by CEQA as a change in the characteristics of a resource that convey its significance or justify its eligibility for inclusion in the NRHP, CRHR, or local register. Direct impacts may occur by (1) physically damaging, destroying, or altering all or part of a resource, (2) altering characteristics of the surrounding environmental setting that contribute to the significance of a resource, (3) allowing a resource to deteriorate through neglect, or (4) incidental discovery of archaeological resources without proper notification. Direct impacts can be assessed by determining the exact location of historical resources and assessing their significance under CEQA criteria, identifying the types and extent of the proposed impacts and their effect on significant resources, as well as determining appropriate measures to reduce impacts to less-than-significant levels. Indirect impacts may include noise, dust, vibrations, heavy equipment, or changes to the viewshed of a significant resource through introduction of a new project element.

Potential impacts on paleontological resources from project activities were evaluated based on a sensitivity assessment of geologic formations identified within the project area. In accordance with Appendix G of the CEQA Guidelines, impacts on paleontological resources are considered significant if the project directly or indirectly destroys a unique paleontological resource or site. Geologic units present within the project area have been assigned a sensitivity ranking based on numerous pertinent factors, such as potential to contain *in situ* fossil materials and the nature of planned subsurface disturbance. These sensitivity ratings are employed as a guide to estimate the likelihood that paleontological resources will be impacted by project activities. They do not imply that disturbance to non-fossil-bearing portions of a geologic unit, regardless of the level of sensitivity ascribed, constitutes an impact on paleontological resources under CEQA.

CEQA recommends avoidance or preservation in place as the preferred treatment for eligible properties and unique or significant archaeological or historical resources (PRC Section 21083.2). If avoidance is not a feasible option, data recovery is a common treatment. For architectural resources, if physical changes to a property—excluding demolition—can be treated following the Secretary of Interior *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*, the project-related impact on the historical resource will be considered less than significant.

Cultural-a: Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? *(Less than Significant)*

As discussed in Section 3.5.2, Regulatory Background, and in accordance with PRC Section 5024.1(c)(1–4), a resource is considered eligible for the CRHR and *historically significant* if it: 1) retains "substantial integrity," and 2) meets at least one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Construction

Estrella Substation

Background research, field surveys, and Native American outreach did not identify CRHR-eligible or listed archaeological resources, or high sensitivity for buried archaeological resources within or adjacent to Estrella Substation. As a result, impacts to historical resources will be less than significant.

In the unlikely event that a previously unidentified archaeological resource, that may qualify as a historical resource, is encountered during ground-disturbing activities associated with the construction of Estrella Substation, the resource could be damaged by grading, excavation, trenching, or other construction activities. For this reason, APM CUL-1 (Retain a Qualified Principal Investigator), APM GEN-1 (WEAP Training Program), APM CUL-3 (Inadvertent Discoveries), and APM CUL-4 (Discovery of Human Remains) will be implemented to avoid or minimize potential impacts to previously unidentified archaeological resources in the event of inadvertent discovery and ensure impacts remain less than significant.

Five built environment resources were identified within the BESA, including the Steinbeck Vineyards and Winery, the Falcon Nest Vineyard and Winery, 5715 Union Road, an existing 500 kV transmission line, and an existing 230 kV transmission line. All five are considered ineligible for listing in the NRHP and CRHR. As a result, there will be no impacts to built environment resources that qualify as historical resources.

Power Line Route

Ground-disturbing activities associated with construction of the 70 kV power line route have the potential to impact cultural resources in the project study area that may be CRHR eligible. Cultural resources studies conducted for the project identified one CRHR-eligible historic built environment resource (Johnson House) and three potentially eligible archaeological resources (36052-S-001, 36052-S-002, and 36052-S-003) within the study area. All four resources will be avoided by project construction-related activities.

Cultural resources studies conducted for the project identified 21 previously undocumented cultural resources. These include two historic archaeological sites (36052-S-001; 36052-S-002), one prehistoric archaeological site (36052-S-003), seven isolated artifacts (36052-ISO-002; 36052-ISO-003; 36052-ISO-004; 36052-ISO-005; 36052-ISO-006; 36052-ISO-007; 36052-ISO-008), and 11 built environment resources. As noted previously, non-unique isolated artifacts are not eligible for listing on the CRHR, and are not considered historically significant under CEQA. For this reason, no further consideration of the isolates identified in the study area is warranted. Archaeological resources 36052-S-001, 36052-S-002, and 36052-S-003 have not been evaluated for CRHR eligibility, and therefore are treated as potentially eligible. However, the project will be designed to avoid these resources that may qualify as historical resources and impacts will be less than significant.

Further, the boundaries of each archaeological resource and a buffer will be established as an Environmentally Sensitive Area and fenced off during project activities per APM CUL-2 (Avoidance) and monitoring will be conducted if work occurs within 50 feet per APM CUL-6 (Archaeological Construction Monitoring). In addition, in the unlikely event that a previously unidentified archaeological resource, that may qualify as a historical resource, is encountered during ground-disturbing activities associated with the construction of the power line route, the resource could be damaged by grading, excavation, trenching, or other construction activities. For this reason, APM CUL-1 (Retain a Qualified Principal Investigator), APM GEN-1 (WEAP Training Program), APM CUL-3 (Inadvertent Discoveries), APM CUL-4 (Discovery of Human Remains), and APM CUL-5 (Tribal Construction Monitoring) will be implemented to avoid or minimize potential impacts to archaeological resources that may qualify as historical resources. Implementation of these APMS will further reduce these already less-than-significant impacts.

Of the 11 built environment resources, only one—the Johnson House (2965 Union Road)—is recommended eligible for listing in the CRHR under Criteria 1 and 3. The 1890 masonry residence reflects special elements of the historical and architectural development of Paso Robles and embodies the distinctive characteristics of a style, type, and method of construction; it is therefore considered a historical resource for the purposes of CEQA. The project involves construction of a new 70 kV power line segment on the north side of Union Road, on the opposite side of an entrance driveway from this historical resource. Because the property is CRHR eligible for its associations with the residential and architectural development of the Paso Robles area, its direct setting is less critical in its ability to convey its significance. Installation of a new power line across the street from this resource will not impact the setting, such that the resource is no longer able to convey the reasons for its significance. As a result, impacts related to historic resources will be less than significant.

Implementation of APMs CUL-1 to APM CUL-6, and APM GEN-1, will further ensure that any potential impacts to CRHR-eligible historical resources resulting from power line construction will remain less than significant.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities associated with Estrella Substation will be conducted in areas previously disturbed by the construction of the substation. Operation and maintenance activities such as routine inspection and repair of substation elements, and access associated with these activities, will not require additional ground disturbance. Maintenance vehicles will use access roads and will not disturb undeveloped lands. As a result, there will be no potential to encounter historical resources and no impacts from the operation and maintenance of Estrella Substation will occur.

Power Line Route

Operation and maintenance activities will typically be conducted in areas previously disturbed by construction of the power line route. Additionally, PG&E has an environmental review process in place for maintenance work and standard Best Management Practices to ensure that related activities avoid environmental impacts, including impacts to cultural resources. While typical maintenance along the power line route, including routine inspection and vegetation and plant trimming activities, will not require additional ground disturbance, hazardous tree removal and other maintenance activities (e.g., pole replacements) may involve limited ground disturbance. However, because the area of the power line route has already been subject to cultural resource surveys and has only low to moderate potential for buried archaeological deposits, such activities are not likely to impact historical resources. As a result, impacts from operation and maintenance of the power line will be less than significant.

Cultural-b: Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? *(Less than Significant)*

Construction

Estrella Substation

No archaeological resources were identified in Estrella Substation work areas. As a result, impacts to archaeological resources pursuant to Section 15064.5 will be less than significant.

In the unlikely event that a previously unidentified archaeological resource, that may qualify as a historical resource, is encountered during ground-disturbing activities associated with the construction of Estrella Substation, the resource could be damaged by grading, excavation, trenching, or other construction activities. For this reason, APM CUL-1 (Retain a Qualified Principal Investigator), APM GEN-1 (WEAP Training Program), APM CUL-3 (Inadvertent Discoveries), and APM CUL-4 (Discovery of Human Remains) will be implemented to avoid or minimize potential impact to previously unidentified archaeological resources in the event of inadvertent discovery and ensure impacts remain less than significant.

Power Line Route

Archaeological resources 36052-S-001, 36052-S-002, and 36052-S-003 have not been evaluated for CRHR eligibility, but will be treated as potentially eligible for this project. In addition, the project will be designed to avoid these resources and therefore impacts related to archaeological resources will be less than significant.

Further, the boundaries of each archaeological resource and a buffer will be established as an Environmentally Sensitive Area and fenced off during project activities per APM CUL-2 (Avoidance) and monitoring will be conducted per APM CUL-6 (Archaeological Construction Monitoring). In addition, in the unlikely event that a previously unidentified archaeological resource, that may qualify as a historical resource, is encountered during ground disturbing activities associated with the construction of power line route, the resource could be damaged by grading, excavation, trenching, or other construction activities. For this reason, APM CUL-1 (Retain a Qualified Principal Investigator), APM GEN-1 (WEAP Training Program), APM CUL-3 (Inadvertent Discoveries), and APM CUL-4 (Discovery of Human Remains) will be implemented to avoid or minimize potential impacts to archaeological resources that may qualify as historical resources. Implementation of these APMs will further reduce these already less-than-significant impacts.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities associated with Estrella Substation will be conducted in areas previously disturbed by the construction of the substation. Operation and maintenance activities such as routine inspection and repair of substation elements, and access associated with these activities, will not require additional ground disturbance. Maintenance vehicles will use access roads and will not disturb undeveloped lands. As a result, there will be no potential to encounter archaeological resources from operation and maintenance of Estrella Substation and no impact will occur.

Power Line Route

Operation and maintenance activities will typically be conducted in areas previously disturbed by construction of the power line route. Additionally, PG&E has an environmental review process in place for maintenance work to ensure that related activities avoid environmental impacts, including impacts to archaeological resources. While typical maintenance along the power line route, including routine inspection and vegetation and plant trimming activities, will not require additional ground disturbance, hazardous tree removal and other maintenance activities may involve limited ground disturbance. However, because the area of the power line route has already been subject to cultural resource surveys and has only low to moderate potential for buried archaeological deposits, such activities are not likely to impact archaeological resources. As a result, impacts from operation and maintenance of the power line will be less than significant.

Cultural-c: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? *(Less than Significant)*

Impacts to paleontological resources could occur when earthwork activities, such as grading and excavation, disturb geological deposits or formations within which fossils are buried, as discussed below. However, there will be no impact to unique geologic features during construction because no such features exist in the project area.

Construction

Estrella Substation

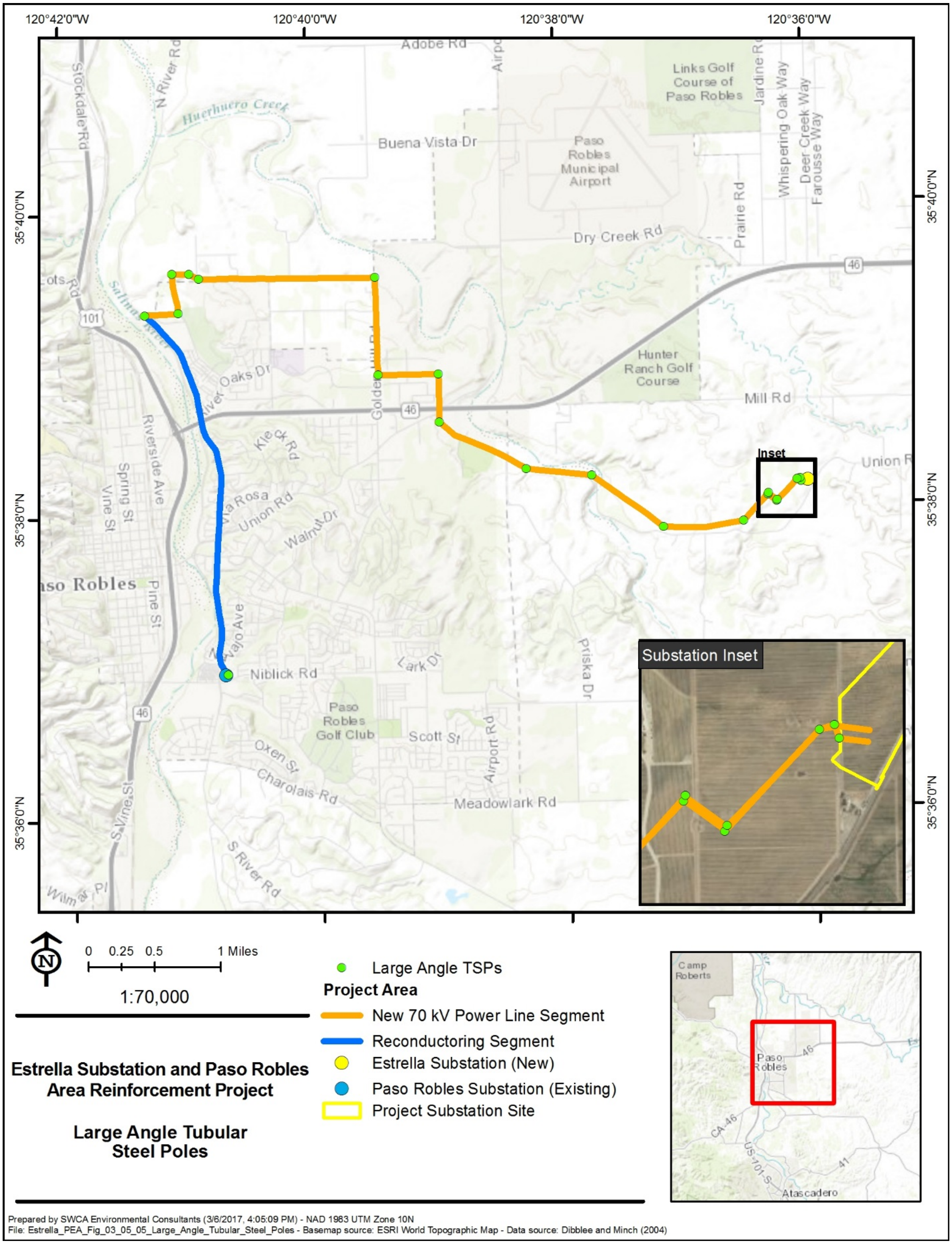
The combined literature and geologic mapping reviews, museum records searches, geotechnical studies, and field investigation conducted for the project revealed that, while the majority of the surface of Estrella Substation is currently covered in agricultural development, the subsurface of Estrella Substation immediately below the agricultural disturbance has a high paleontological sensitivity (PFYC 4b).

Based on the size and depth of grading activities for substation construction (approximately 15 acres of grading at depths up to 15 feet), destruction of paleontological resources during construction of Estrella Substation is possible within the subsurface Paso Robles formation and Quaternary older alluvium. However, implementation of APM GEN-1 (WEAP Training Program), APM PALEO-1 (Retain a Qualified Principal Investigator), APM PALEO-2 (Inadvertent Discoveries), APM PALEO-3 (Paleontological Construction Monitoring), and APM PALEO-4 (Fossil Recovery) will reduce impacts to a less-than-significant level because they include specific provisions to address discovery of paleontological resources and minimize effects to these resources.

Power Line Route

The combined literature and geologic mapping reviews, museum records searches, geotechnical studies, and field investigation conducted for the project revealed that the majority of the surface of the power line route is currently covered in agricultural or urban development. The majority of the subsurface immediately below the modern disturbance is made of either older alluvium or the Paso Robles formation, both of which have high paleontological sensitivity (PFYC 4b). A small number of poles (approximately 24) are located in areas underlain by more recent alluvium (Qa or Qg) with low paleontological sensitivity (PFYC 2); however, these sediments are likely underlain by the highly sensitive older alluvium and Paso Robles formation at depths of approximately 5 feet. Based on the depth of structure installation (up to 20 feet), destruction of paleontological resources during construction of the power line route is possible. However, implementation of APM GEN-1 (WEAP Training Program), APM PALEO-1 (Retain a Qualified Principal Investigator), APM PALEO-2 (Inadvertent Discoveries), APM PALEO-3 (Paleontological Construction Monitoring), and APM PALEO-4 (Fossil Recovery) will reduce impacts to a less-than-significant level because they include specific provisions to address discovery of paleontological resources and minimize effects to these resources. Large angle TSPs located along the power line route requiring paleontological monitoring are shown on Figure 3.5-4, Large Angle Tubular Steel Poles.

Figure 3.5-4. Large Angle Tubular Steel Poles



Operation and Maintenance

Estrella Substation

Operation and maintenance activities associated with Estrella Substation will be conducted in areas previously disturbed by the construction of the substation. Maintenance vehicles will use access roads and will not disturb undeveloped lands. As a result, there will be no potential to encounter paleontological resources from the operation and maintenance of Estrella Substation and no impact will occur.

Power Line Route

Operation and maintenance activities will typically be conducted in areas previously disturbed by construction of the power line route. Additionally, PG&E has an environmental review process in place for maintenance work to ensure that related activities avoid environmental impacts, including impacts to paleontological resources. While typical maintenance along the power line route, including routine inspection and vegetation and plant trimming activities, will not require additional ground disturbance, hazardous tree removal and other maintenance activities (e.g., pole replacements) may involve limited ground disturbance. Therefore, impacts from operation and maintenance of the power line route will be less than significant.

Cultural-d*:* Disturb any human remains, including those interred outside of dedicated cemeteries? *(Less than Significant)*

Construction

Estrella Substation

Cultural resources studies conducted for the project including CHRIS and Sacred Lands Files records searches, field surveys, and coordination with local Native American groups revealed no indication that the project will impact known graves. Project impacts on human remains are not anticipated in Estrella Substation work areas during the construction phase. If human remains are encountered, the project proponents will implement the appropriate notification processes as required by law. Work will be halted in the vicinity of the find and the County Coroner will be notified. Therefore, impacts will be less than significant. APM CUL-4 (Discovery of Human Remains) and APM GEN-1 (WEAP Training Program) will further ensure impacts remain less than significant.

Power Line Route

Cultural resources studies conducted for the project including CHRIS and Sacred Lands Files records searches, field surveys, and coordination with local Native American groups revealed no indication that the project will impact known graves. Project impacts on human remains are not anticipated in the power line route work areas during the construction phase. If human remains are encountered, the project proponents will implement the appropriate notification processes as required by law. Work will be halted in the vicinity of the find and the County Coroner will be notified. Therefore, impacts will be less than significant. APM CUL-4 (Discovery of Human Remains) and APM GEN-1 (WEAP Training Program) will further ensure impacts remain less than significant.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities associated with Estrella Substation will be conducted in areas previously disturbed by the construction of the substation. Operation and maintenance activities such as routine inspection and repair of substation elements, and access associated with these activities, will not require additional ground disturbance. Maintenance vehicles will use access roads and will not disturb undeveloped lands. As a result, there will be no potential to encounter human remains and impacts on human remains from the operation and maintenance of Estrella Substation and no impact will occur.

Power Line Route

Operation and maintenance activities will typically be conducted in areas previously disturbed by construction of the power line route. Additionally, PG&E has an environmental review process in place for maintenance work to ensure that related activities avoid environmental impacts, including impacts to human remains. While typical maintenance along the power line route, including routine inspection and vegetation and plant trimming activities, will not require additional ground disturbance, hazardous tree removal and other maintenance activities may involve limited ground disturbance. All ground-disturbing maintenance activities will be conducted within areas that will be disturbed during construction; maintenance will not result in new areas of ground disturbance and there will be no potential to encounter human remains during operation and maintenance activities. There will be no impact during the operation and maintenance of the power line route.

Cultural-e: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? *(Less than Significant)*

CPUC will conduct consultation with eligible tribes under PRC Section 21080.3.1 once the application is complete. Impacts to TCRs are not addressed in this PEA because, under AB 52, CPUC must identify these resources during consultation. However, the project proponents did conduct outreach in informal coordination with Native American tribes in an effort to request information from the tribes regarding the potential for sensitive Native American resources, including TCRs. Federal and state registers were also reviewed in order to identify any TCRs already formally listed. Results of the records searches indicate that no Native American cultural resources that might be TCRs are known within or in the immediate vicinity of the study area. Project proponents are not aware of any TCRs that will be impacted by the project.

Cultural resources background research, surveys, and Native American outreach did not identify Native American affiliated resources that may be considered TCRs within or adjacent to the substation or the power line. As a result, impacts related to TCRs are not anticipated. The power line route has been designed to avoid ground disturbing activities, in relation to Dry Creek, Huerhuero Creek, and the Salinas River. Should ground disturbance be required in close proximity to Dry Creek, Huerhuero Creek, or the Salinas River, the project proponents will implement APM CUL-5 (Tribal Construction Monitoring). Already less-than-significant impacts related to TCRs will be further reduced with implementation of APM CUL-5.

3.5.5 References

Bowler, Ann Martin. 2003. *History of the Paso Robles Inn*. Oak Lake Press, Loomis, California.

City of El Paso de Robles. 2003a. *City of El Paso Robles. General Plan 2003. Land Use Element.* December 2003. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/LandUseElement.pdf. Accessed March 15, 2016.

______. 2003b. *City of El Paso Robles. General Plan 2003. Conservation Element.* December 2003. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/ConservationElement.pdf. Accessed March 15, 2016.

______. 2014. *City of El Paso Robles. General Plan 2003. Housing Element.* October 2014. Online: http://www.prcity.com/government/departments/commdev/housing/pdf/HousingElement-October2014.pdf. Accessed March 15, 2016.

______.. 2016a. Airport History. Online: http://www.prcity.com/government/departments/publicworks/airport/history.asp. Accessed March 15, 2016.

______. 2016b. *Zoning Code. Chapter 21.15 – Historical and Architectural Preservation District.* Online: https://www.municode.com/library/ca/el_paso_de_robles/codes/code_of_ordinances?nodeId=TIT21ZO_ARTIGERE_CH21.15HIARPRDI. Accessed DATE?

County of San Luis Obispo. 2010. *County of San Luis Obispo General Plan*. San Luis Obispo, California.

Dibblee, T.W., and J.A. Minch. 2004a. *Geologic map of the Paso Robles quadrangle, San Luis Obispo County, California*. Dibblee Geologic Foundation. Map #DF-137.______. 2004b. *Geologic map of the Estrella and Shandon quadrangles, San Luis Obispo County, California*. Dibblee Geologic Foundation. Map #DF-138.

Durham, David L. 1974. *Geology of the Southern Salinas Valley Area, California*. Geological Survey Professional Paper 819. United States Government Printing Office, Washington.

Finger, K.L. 2016. University of California Museum of Paleontology records search. April 15, 2016.

Fredrickson, David A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

_______. 1974. Cultural Diversity in Early California: A View from the North Coast Ranges. *Journal of California Anthropology* 1(1):41–53.

_______. 1994. Archaeological Taxonomy in Central California Reconsidered. In *Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, edited by Richard E. Hughes, pp. 93–103. Contributions of the University of California Archaeological Research Facility, No. 52. Berkeley.

Gibson, Robert O. 1983. *Ethnogeography of the Salinan People: A Systems Approach*. Master's thesis, California State University, Hayward.

Glover, Leslie C., David W. Glover, K.R. Bethard, David Zeanah, Robert Pavlik, and Mark E. Basgall. 1999. *Archaeological Survey Report for a Highway Widening from Two Lanes to Four Along Highway 46, San Luis Obispo County, California*. Prepared for California Department of Transportation District 5 by the Archaeological Research Center, Department of Anthropology, California State University, Sacramento. ARC Technical Report 99-10.

Gudde, Erwin G., and William Bright. 1998. *California Place Names*. Fourth edition. University of California Press, Berkeley.

Harden, D. R. 2004. *California Geology*. Second edition. Pearson Prentice Hall, Upper Saddle River, New Jersey, USA. 552 pp.

Hester, Thomas R. 1978. Salinan. In *California*, edited by Robert F. Heizer, pp. 500-504. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Historic Resources Group. 2010. *City of Paso Robles Historic Resources Survey*. Online: http://www.prcity.com/government/departments/commdev/pdf/HistoricResourcesSurvey.pdf. Accessed February 10, 2016.

Hoffman, Ogden. 1862. *Reports of land cases determined in the United States District Court for the Northern District of California: June term, 1853 to June term, 1858, inclusive*. Vol. 1. Numa Hubert, San Francisco, California.

Hoover, Mildred B., Hero E. Rensch, Ethel G. Rensch, and William N. Abeloe. 2002. *Historic Spots in California*. Fifth edition. Revised by Douglas E. Kyle. Stanford University Press, Palo Alto, California.

Jones, Terry L., and Jennifer A. Ferneau. 2002. Deintensification along the Central California Coast. In *Catalysts to Complexity, Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 205-232. Perspectives in California Archaeology Vol. 6. Costen Institute of Archaeology, University of California, Los Angeles.

Jones, Terry L., Nathan E. Stevens, Deborah A. Jones, Richard T. Fitzgerald, and Mark G. Hylkema. 2007. The Central Coast: A Midlatitude Milieu. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 125–146. Alta Mira Press, New York.

Kroeber, Alfred L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78, Smithsonian Institution, Washington D.C.

Kyle, Douglas, Hero Rensch, Mildred Hoover, Ethel Rensch, and William Abeloe. 2002. *Historic Spots in California*. Stanford University Press, California.

McLeod, Sam A. 2016. Natural History Museum of Los Angeles County records search. April 29, 2016.

Milliken, Randall T., and John R. Johnson. 2005. *An Ethnogeography of the Salinan and Northern Chumash Communities – 1769 to 1810*. Far Western Anthropological Research Group, Inc. Submitted to California Department of Transportation, District 5. On file at SWCA Environmental Consultants, South Pasadena, California.

Moratto, Michael J. 1984. *California Archaeology*. Academic Press, New York.

Norris, R., and Webb, R. 1990. *Geology of California*. Second edition. John Wiley & Sons. New York.

Pacific Gas and Electric Company (PG&E). 2015. *Paleontological Resources Standards and Procedures*. 30 pp.

Scott, Eric, and Kathleen Springer. 2003. CEQA and Fossil Preservation in California. *The Environmental Monitor*, Fall 2003, p. 4–10.

Society of Vertebrate Paleontology. 1995. Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines. *Society of Vertebrate Paleontology News Bulletin* 163:22–27.

———. 2010. *Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources*. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee. Online: https://vertpaleo.org/Membership/Member-Resources/SVP_Impact_Mitigation_Guidelines.aspx. Accessed March 2, 2016.

SoilWeb. 2016. SSURGO database Google Earth layer maintained by University of California, Davis. Online: http://casoilresource.lawr.ucdavis.edu/soil_web/kml/SoilWeb.kmz. Accessed on March 2, 2016.

State-Surveyor General. 1886. *Corrected report of Spanish and Mexican grants in California complete to February 25, 1886*. State Office, Sacramento. Online: https://babel.hathitrust.org/cgi/pt?id=umn.31951d026398959;view=1up;seq=4. Accessed March 16, 2016.

Storke, Yda Addis. 1891. *A Memorial and Biographical History of the Counties of Santa Barbara, San Luis Obispo and Ventura, California*. The Lewis Publishing Company, Chicago. Online: http://search.ancestry.com/search/db.aspx?dbid=26499. Accessed March 16, 2016.

University of California, Berkeley. 184-(?). Diseño del Rancho Santa Ysabel: San Luis Obispo County, Calif. United States. District Court (California: Southern District). Land case 42 SD, page 59; land case map B-1008 (Bancroft Library).

U.S. Bureau of Land Management. 2007. Potential Fossil Yield Classification System (PFYC) for Paleontological Resources. Online: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/20080/im_2008-009.html. Accessed March 2016.

3.6 GEOLOGY AND SOILS

3.6.1 Introduction

This section describes the existing geological and soil conditions, and potential geologic and geotechnical hazards at the project sites and surrounding areas, and concludes that any impacts will be less than significant. Potential geologic hazards within the project area include fault-surface rupture, ground shaking, landslides, liquefaction, and other ground-failure mechanisms. Implementation of Applicant-Proposed Measures (APMs) described in Section 3.6.4.2, Applicant-Proposed Measures, will further reduce less-than-significant impacts on geology and soils. The project's potential effects on geology and soils were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.6-1, CEQA Checklist for Geology and Soils, and discussed in more detail in Section 3.6.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.6-1. CEQA Checklist for Geology and Soils

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

Table 3.6-1. CEQA Checklist for Geology and Soils

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

3.6.2 Regulatory Background and Methodology

3.6.2.1 Regulatory Background

Federal

Earthquake Hazards Reduction Act

In October 1977, Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. To accomplish this goal, the act established the National Earthquake Hazards Reduction Program, which was substantially amended in November 1990, by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives. The NEHRPA designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies include the National Institute of Standards and Technology, the National Science Foundation, and the U.S. Geological Survey (USGS).

State

Alquist-Priolo Earthquake Fault Zoning Act

California enacted the Alquist-Priolo Special Studies Zones Act in 1972, which was renamed the Alquist-Priolo Earthquake Fault Zoning Act in 1994. Also known as the Alquist-Priolo Act, it requires the establishment of "earthquake fault zones" along known active faults in California. Regulations on development within these zones are enforced to reduce the potential for damage resulting from fault surface rupture. (See Section 3.6.3.5, Seismicity, for further discussion.)

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (SHMA) addresses earthquake hazards other than fault rupture, including liquefaction and seismically induced landslides. Seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The SHMA states that "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety."

California Building Standards Code

The California Building Standards Commission is responsible for coordinating, managing, adopting, and approving building codes in California. The State of California provides minimum standards for building design through the 2010 California Building Standards Code (CBC) (CCR Title 24). The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes and is contained in Chapter 16 of the CBC. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls and specifies required geological reports. Appendix J of the 2010 CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

California Public Utilities Commission General Order 95

California Public Utilities Commission (CPUC) General Order (G.O.) 95 provides general standards for design and construction of overhead electric transmission and distribution lines (CPUC 2015a). Standards include but are not limited to rules addressing general arrangement and use of lines, grounding, clearances between electrified portions of lines and the ground or other physical structures, and vegetation management. The intent of these rules is to provide for adequate service and secure safety to persons engaged in the construction, maintenance, operation, or use of overhead lines and to the public in general. The rules are not intended to provide complete construction specifications, but to embody the requirements determined to be most important from the standpoint of safety and service.

Local

Because CPUC has exclusive jurisdiction over the siting, design, and construction of the project, the project is not subject to local discretionary regulations. The project proponents will obtain any required ministerial permits for project construction.

County of San Luis Obispo General Plan

The *Safety Element* of the *County of San Luis Obispo General Plan* (County of San Luis Obispo 1999) establishes goals, policies, and implementation measures for the prevention, response, and public education of natural disasters and other hazards within County jurisdiction.

> ***Goal S-5. Minimize the potential for loss of life and property resulting from geologic and seismic hazards***
>
> ***Policy S-8. Fault Rupture Hazards.*** *Locate new development away from active and potentially active faults to reduce damage from fault rupture. Fault studies may need to include mapping and exploration beyond project limits to provide a relatively accurate assessment of a fault's activity. The County will enforce applicable regulations of the Alquist-Priolo Earthquake Fault Zoning Act pertaining to fault zones to avoid development on active faults.*
>
> ***Policy S-19. Reduce Seismic Hazards.*** *The County will enforce applicable building codes relating to the seismic design of structures to reduce the potential for loss of life and reduce the amount of property damage.*
>
> ***Policy S-20. Liquefaction and Seismic Settlement.*** *The County will require design professionals to evaluate the potential for liquefaction or seismic settlement to impact structures in accordance with the currently adopted Uniform Building Code.*

The *Conservation and Open Space Element* of the General Plan establishes goals, policies, and implementation measures for the preservation of natural resources, cultural resources, scenic beauty, recreation, and open space within County jurisdiction.

> ***Goal S-1. Soils will be protected from wind and water erosion, particularly that caused by poor soil management practices.***
>
> ***Policy SL-1.1. Prevent Loss of Topsoil in All Land Uses.*** *Minimize the loss of topsoil by encouraging broad-based cooperation between property owners, agricultural operators, agencies, and organizations that will lead to effective soil conservation practices on all lands, including County-controlled properties.*
>
> ***Policy SL-1.2. Promote Soil Conservation Practices in All Land Uses.*** *Require erosion and sediment control practices during development or other soil-disturbing activities on steep slopes and ridgelines. These practices should disperse stormwater so that it infiltrates the soil rather than running off, and protect downslope areas from erosion.*

> ***Policy SL-1.3. Minimize Erosion associated with New Development.*** *Avoid development, including roads and driveways, on the steeper portions of a site except when necessary to avoid flood hazards, protect prime soils, and protect sensitive biological and other resources. Avoid grading and site disturbance activities on slopes over 30%. Minimize site disturbance and protect existing vegetation as much as possible.*

> ***Goal S-3. Important Agricultural Soils will be conserved.***

> ***Policy SL-3.1. Conserve Important Agricultural Soils.*** *Conserve the Important Agricultural Soils mapped in Figure SL-1 and listed in Table SL-2. Proposed conversion of agricultural lands to non-agricultural uses shall be evaluated against the applicable policies in this COSE and in the Agriculture Element, including policies such as Policies AGP 18 and AGP 24.*

City of El Paso de Robles General Plan

The *Conservation Element* of the *City of El Paso de Robles General Plan* (City of El Paso de Robles 2003) addresses the community risks associated with fires, flood, geologic hazards and other phenomena with goals, policies, and action items that include the following:

> ***Goal S-1: Minimize exposure to natural and manmade hazards.***

> ***Policy S-1D.*** *Structural Safety. Rely on the City's planning and building permit review process to ensure that existing and proposed structures are adequately designed, and to reduce susceptibility to damage from fire, flooding, and geologic hazards.*

>> ***Action Item 3.*** *Require structures identified as being located in hazardous areas to be brought into conformance with acceptable levels of risk.*

>> ***Action Item 4.*** *Discourage the locating of critical facilities within identified hazard areas.*

3.6.2.2 Methodology

Geotechnical reports for Estrella Substation and the power line route were prepared to assist with the design of the project. Reports were based in part on field exploration consisting of drilling, sampling, and logging exploratory borings at the substation site and along the power line route. Boring samples were further tested in a laboratory to inform the relevant geotechnical engineering parameters of the subsurface soils. The geotechnical reports analyzed criteria including CBC seismic design parameters, liquefaction and other seismic events, slope stability, and foundation load capacity. Each report provided recommendations related to excavation, dewatering, fill, and foundation design. The geotechnical reports are included as Appendices L (Estrella Substation) and M (Power line route).

Other information provided on geology and soils was compiled from published literature, maps, and examination of aerial photographs. Geologic units and structural features were obtained from maps published by the County of San Luis Obispo, which were digitized from a compilation of several maps and data sources including USGS, California Geologic Survey (CGS), and others. Soil descriptions were obtained from mapping by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS). Seismic information was developed from several sources, including the USGS, CGS, and the Safety Element of the County and City General Plans.

The impact analysis considers whether implementation of the project will result in significant impacts to geology or soils resources. The analysis focuses on reasonably foreseeable effects of the project as compared with baseline conditions. The analysis uses significance criteria based on the CEQA Appendix G Guidelines. The potential direct and indirect effects of the project are addressed. Applicable APMs are identified and defined to avoid or reduce impacts to geology and soils resources.

3.6.3 Environmental Setting

3.6.3.1 Regional Structural Geology

California is divided into several physiographic or geomorphic provinces, including the Sierra Nevada range, the Central (Great) Valley, the Transverse Ranges, the Coast Ranges, and others. San Luis Obispo County lies within the Coast Range geomorphic province of California. The Coast Ranges are northwest-trending mountain ranges and valleys, parallel to the San Andreas Fault. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. To the east, strata dip beneath alluvium of the Great Valley and, to the west, is the Pacific Ocean where the coastline is uplifted, terraced, and wave-cut. The northern and southern ranges are separated by a depression containing the San Francisco Bay (California Department of Conservation [DOC] 2002). The portion of the Coast Range province that comprises the coast of central California was formed at the intersection of two tectonic plates: the Pacific plate to the west and the North American plate to the east. The compressive and shearing motions between the tectonic plates resulted in a complex system of active strike-slip faults, reverse faults, thrust faults, and related folds (bends in rock layers) (Clark et al. 1994).

San Luis Obispo County is divided into four structurally and physiographically distinct areas, called seismotectonic domains, which include the Santa Maria-San Luis Range domain, the Coastal Franciscan domain, the Salinian domain, and the Western San Joaquin Valley domain. The project lies within the Salinian domain, located in the northern and eastern portion of San Luis Obispo County, including the communities of Paso Robles, Templeton, Shandon, and Atascadero. The domain extends south-southeast to also include the Carrizo Plains area. Granitic and crystalline metamorphic basement rocks underlie the sedimentary formations in this domain (Compton 1966). The Salinian domain has a moderate- to high-relief western region characterized by abundant northwest-striking faults with historical earthquake activity, and an eastern region characterized by generally low relief and few recognized surface faults (Clark et al. 1994).

Historical seismicity in the Salinian domain is concentrated mainly along its right-lateral strike-slip boundary faults (Nacimiento and San Andreas), and is relatively sparse within the central portion of the domain. Seismically, the Salinian domain, apart from the San Andreas Fault, is relatively quiet (Dehlinger and Bolt 1987). The pronounced difference in seismic character between the Salinian domain and the adjacent Coastal Franciscan domain (with moderate to high seismicity) is attributed to the differences in the strength of the rocks that comprise their respective zones.

The Salinian domain has a generally lower occurrence of geologic hazards in comparison to the Santa Maria Basin-San Luis Range Domain and Coastal Franciscan domains. The main geologic hazards associated with this domain are groundshaking, liquefaction or seismic-related settlement of alluvium in the low-lying areas, and landslide potential in hillsides of moderate to steep slopes.

3.6.3.2 Stratigraphic Units

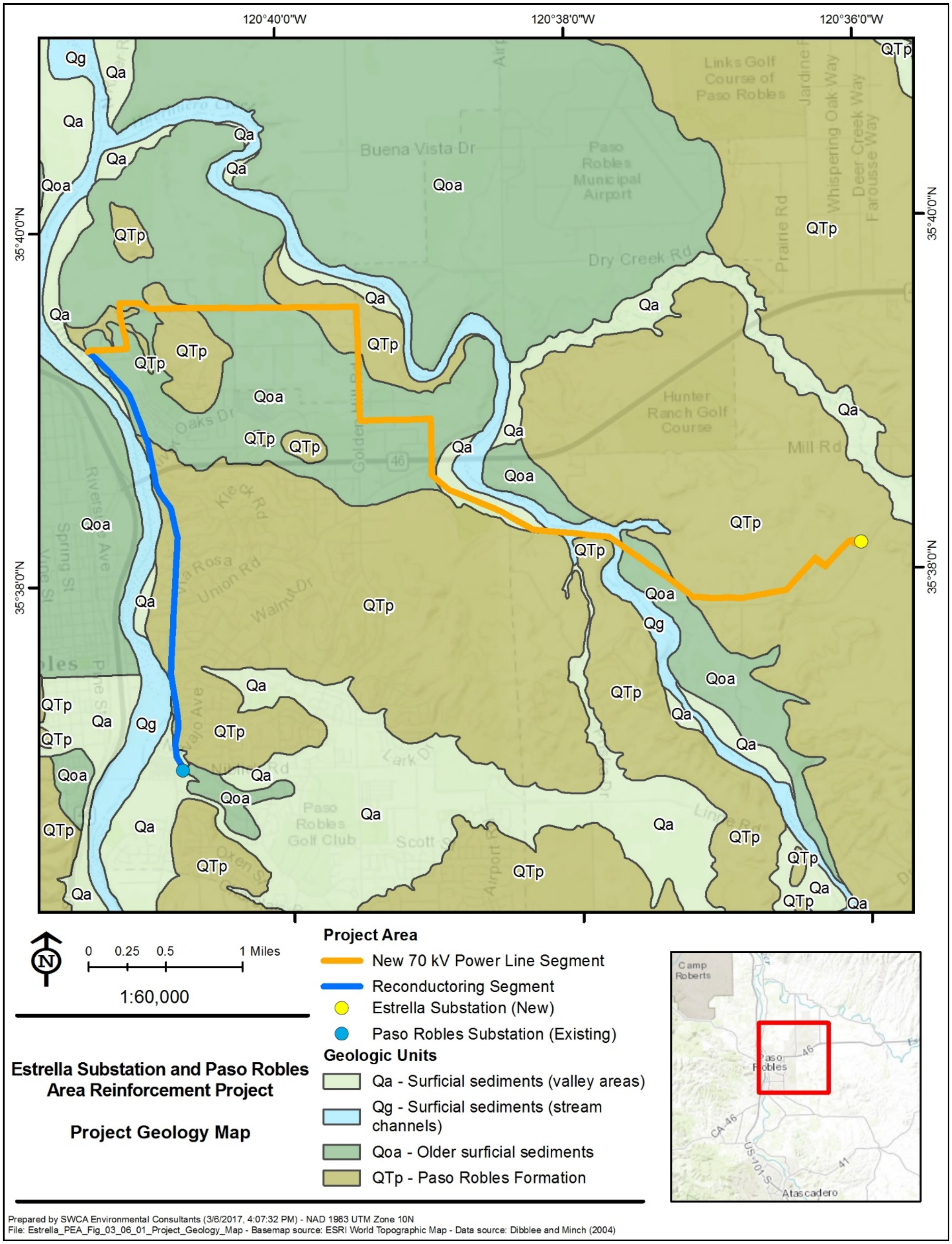
Stratigraphy is the branch of geology which describes the formation, composition, sequence, and properties of stratified (sedimentary) rocks. The major stratigraphic units (geologic formations) in San Luis Obispo County are shown on Figure 3.6-1, Project Geology Map (County of San Luis Obispo 1999).

The project area is entirely underlain by quaternary deposits including the Paso Robles Formation (QTp); modern alluvial gravel and sand deposits of stream channel (Qhc) underlying the Salinas River, Huerhuero Creek, and Dry Creek; undifferentiated early to late Pleistocene alluvial deposits (Qoa); and undifferentiated latest Pleistocene to Holocene alluvial gravel and sand of valley areas (Qa). Estrella Substation is underlain by the Paso Robles Formation (QTp). The 70 kV power line route traverses areas of each Quaternary unit. Areas of high elevation tend to be underlain by the Paso Robles Formation, particularly along the reconductoring segment, while lower elevation floodplains are underlain by alluvial deposits and modern stream channel deposits, particularly along the new 70 kV power line segment.

Bedrock beneath the alluvial sediments is mapped as the Paso Robles Formation (QTp), a Plio-Pleistocene, predominantly non-marine geologic unit comprised of relatively thin, often discontinuous sand and gravel layers interbedded with thicker layers of silt and clay. It was deposited in alluvial fan, flood plain, and lake depositional environments. Seashells are reported in some well logs near the base of the Paso Robles Formation, suggesting a near-shore marine depositional environment. The formation is unconsolidated, generally poorly sorted, and not usually intensely deformed. The sand and gravel beds within the unit have a high percentage of Monterey shale gravel (DWR 2016). The Paso Robles Formation is less coarse and less permeable than other alluvium.

Alluvial deposits occur beneath the flood plains of the rivers and streams in the project area. These deposits reach a depth of about 100 feet below ground surface (bgs) or less and are typically comprised of coarse sand and gravel. The alluvium is generally much coarser than the Paso Robles Formation sediments, resulting in higher permeability (DWR 2016).

Figure 3.6-1. Project Geology Map



3.6.3.3 Soils Overview

Geotechnical investigation of Estrella Substation and the power line route involved soil drill boring to depths between 30 to 45 feet. No bedrock was encountered at any of the boring sites drilled. Soil borings at Estrella Substation, currently in agricultural use, encountered native soils approximately 8 to 12 inches beneath the topsoil. Native soils consisted of soft to hard lean clays and very loose to very dense sand soils. Soils encountered during geotechnical investigation of boring sites along the 70 kV power line route and reconductoring segment generally consisted of medium dense to dense clayey sand, silty sand, and poorly graded sand with variable quantities of fine gravel. Sandy soils close to the Huerhuero Creek channel on the 70 kV power line route tended to be less dense than other alluvial soils. Soils along the reconductoring segment were underlain by stiff to hard lean clay and sandy lean clay.

Table 3.6-2, Soil Characteristics, further summarizes the generalized soil characteristics and mapped soil types associated with Estrella Substation and the 70 kV power line route based on mapped NRCS soil survey data (NRCS 2016). Soil types in the project area range from shallow to very deep, moderate to well drained, and consist of loams with variable sand, gravel, silt, and clay content. General characteristics of the soils present are presented below.

Approximately 50% of Estrella Substation and approximately 53% of the power line route are comprised of Arbuckle or Arbuckle complex soils (Arbuckle-Positas or Arbuckle-San Ysidro). Nacimiento complex soils make up approximately 50% of Estrella Substation (Nacimiento-Los Osos) and approximately 19% of the power line route (Nacimiento-Ayar and Nacimiento-Los Osos). Handford and Greenfield soils make up approximately 9% of the power line route, with the remaining 19% of the power line route comprised of several other soils, as listed below.

- **Arbuckle soils.** Very deep, well-drained, sandy loam formed in alluvial materials from mainly conglomerate and metasedimentary rocks occurring on low terraces.
- **Positas soils.** Deep and very deep, moderately well-drained, gravelly loam formed in alluvial material from mixed rock sources typically occurring on stream terraces.
- **San Ysidro soils.** Deep, moderately well-drained, fine sandy loam that are formed in alluvium from sedimentary rocks occurring on old, low terraces.
- **Nacimiento soils.** Moderately deep, well-drained, silty clay loam formed in material weathered from calcareous shale and sandstone occurring on rolling uplands.
- **Los Osos soils.** Moderately deep, well-drained loam that formed in material weathered from sandstone and shale occurring on uplands.
- **Diablo soils.** Typically well-drained, silty clay formed from weathered shale, sandstone, and consolidated sediments with minor areas of material containing volcanic ash typically occurring on rolling to steep uplands.
- **Ayar soils.** Deep or very deep, well-drained, silty clay formed from weathered, decomposed alkaline shale and sandstone material often associated with rolling hills.
- **Balcom soils.** Moderately deep and well-drained loam formed from soft, calcareous shale and sandstone substrates typically occurring on hills.

Table 3.6-2. Soil Characteristics

Soil Unit (% slope)	Shrink-Swell (LE)	Water EH (Kw)	Wind EH	Off-Road EH	On Road EH
Estrella Substation					
Arbuckle-Positas complex (9-15%)	Low–High (0–8.9)	Low–Moderate (.15–.37)	3–5	Slight (-)	Moderate–Severe (0.5–0.95)
Arbuckle-San Ysidro complex (2-9%)	Low–High (0–8.9)	Low–Moderate (.15–.37)	3–5	Very Severe (0.95)	Severe (0.95)
Ayar and Diablo soils (9-15%)	High (6.0–8.9)	Moderate (.20–.32)	4	Slight (-)	Moderate–Severe (0.5-0.95)
Nacimiento-Los Osos complex (9-30%)	Moderate–High (3.0–8.9)	Moderate (.28–.37)	6	Moderate (0.5)	Severe (0.95)
New 70 kV Power Line					
Arbuckle fine sandy loam (0-2%)	Low–Moderate (0–5.9)	Low–Moderate (.15–.37)	3	Slight (-)	Slight (-)
Arbuckle-Positas complex (9-75%)	Low–High (0–8.9)	Low–Moderate (.15–.37)	3–5	Slight-Very Severe (0 to 0.95)	Moderate–Severe (0.5–0.95)
Arbuckle-San Ysidro complex (2-9%)	Low–High (0–8.9)	Low–Moderate (.15–.37)	3–5	Very Severe (0.95)	Severe (0.95)
Hanford and Greenfield gravelly sandy loams (0-9%)	Low (0.0–2.9)	Low (.10–.15)	5	Slight (-)	Slight-Moderate (-)
Nacimiento-Ayar complex (9-30%)	Moderate–High (3.0–8.9)	Moderate (.28–.37)	4–6	Moderate (0.5)	Severe (0.95)
Nacimiento-Los Osos complex (9-30%)	Moderate–High (3.0–8.9)	Moderate (.28–.37)	6	Moderate (0.5)	Severe (0.95)
San Ysidro loam (0 to 2%)	Low–High (1.3–8.5)	Moderate (0.32)	6	Slight (-)	Slight (-)
Sesame sandy loam (9 to 30%)	Low–Moderate (0.0–5.9)	Moderate (.20–.32)	3	Moderate (0.5)	Severe (0.95)
Xerofluvents-Riverwash association	-		1	Slight (-)	Slight (-)

Table 3.6-2. Soil Characteristics

Soil Unit (% slope)	Shrink-Swell (LE)	Water EH (Kw)	Wind EH	Off-Road EH	On Road EH
Reconductoring Segment					
Arbuckle fine sandy loam (0-2%)	Low–Moderate (0–5.9)	Low–Moderate (.15–.37)	3	Slight (-)	Slight (-)
Arbuckle-Positas complex (30-50%)	Low–High (0–8.9)	Low–Moderate (.15–.37)	3–5	Severe (0.75)	Severe (0.95)
Arbuckle-San Ysidro complex (2-9%)	Low–High (0–8.9)	Low–Moderate (.15–.37)	3–5	Very Severe (0.95)	Severe (0.95)
Balcom-Calleguas complex (50-75%)	Moderate (3.0–5.9)	Moderate-High (.17–.43)	4L–5	Very Severe (0.95)	Severe (0.95)
Linne-Calodo complex (9-50%)	Moderate (3.0–5.9)	Low–Moderate (.10–.28)	4L–5	Moderate-Severe (0.5-0.75)	Severe (0.95)
Metz loamy sand (0-5%)	Low (0.0–2.9)	Low–Moderate (.10–.28)	2	Slight (-)	Slight (-)
Nacimiento-Ayar Complex (9-30%)	Moderate–High (3.0–8.9)	Moderate (.28–.37)	4–6	Moderate (0.5)	Severe (0.95)
Nacimiento-Los Osos complex (30-50%)	Moderate–High (3.0–8.9)	Moderate-High (.24–.43)	6	Severe (0.75)	Severe (0.95)

Note: Blanks indicate that no data is available. EH = erosion hazard; ATC = Abrupt Textural Change; PB = Paralithic bedrock
Source: NRCS 2016.

- **Calleguas soils**. Typically shallow, well-drained, clay loam occurring on exposed and eroded upland slopes and hills and primarily formed from weathered sedimentary rock.
- **Hanford soils.** Typically very deep, well-drained, fine sandy loam formed from moderately coarse alluvium dominated by weathered granitic material, and are found on stream bottoms, floodplains and in alluvial fans.
- **Greenfield soils.** Deep, well-drained, coarse sandy loam formed from alluvium materials derived from granitic and mixed rock sources occurring in alluvial fans and terraces.
- **Linne soils.** Moderately deep, well-drained, clay loam that consist largely of weathered soft shale and sandstone materials and typically on mountainous uplands and foothills.
- **Calodo soils.** Shallow, well-drained, clay loam that consist of calcareous shale and sandstone material occurring in uplands.
- **Metz soils.** Very deep, excessively drained, fine sandy loam that consist of alluvial material derived primarily from sedimentary rock and some other mixed rock material occurring in floodplains and alluvial fans.
- **Sesame soils.** Moderately deep, well-drained, sandy loam formed from weathered granitic, quartz diorite, gabbrodiorite and metamorphic rocks often found in foothills and mountainous uplands.
- **Xerofluvents.** Somewhat excessively drained soils that occur in floodplains and are often comprised of sand, stratified gravel, sandy loam, and gravelly loam materials.
- **Riverwash.** Occur in river channels and are comprised entirely of sandy material.

3.6.3.4 Soils Properties

Soils are comprised of particles known as sand, silt, and clay, where a loamy soil is considered an equal balance of all components. Table 3.6-2 includes selected soils important for consideration during engineering and design of construction projects. Soils that are primarily sandy are porous with less fine particulate matter embedded between sand grains. These sandy soils are less stable and more susceptible to seismic hazards such as liquefaction and erosion. Soils that are dominated by clay are close-textured but can be expansive, or susceptible to shrinking and swelling, which can lift or settle during rain events and cause damage to structures. Lastly, soils overlaying steep slopes or soft alluvial geologic structures are more susceptible to instability such as landslides.

Expansive soils are those that contain significant amounts of clays that expand when wet and can cause damage to foundations such as differential or cyclical foundation movement if moisture collects beneath structures. The "Shrink-Swell" classes are based on the change in length, or linear extensibility, of a tested sample as moisture content is decreased from a moist to a dry state.

Erosion factor "K" indicates susceptibility of a soil to sheet and rill erosion by water. These are based primarily on percentage of silt, sand, and organic matter, and on soil structure and saturated hydraulic conductivity. Erosion factor Kw indicates the erodibility of the whole soil and considers fine-earth particles in addition to larger constituents such as gravel. Soils high in clay are resistant to detachment and have a low susceptibility of erosion. Coarse textured soils, such as sandy soils, have a low susceptibility to erosion because they are not easily transported in sheetflow even though these soils are easily detached. Soils having a high silt content are most erodible of all soils because they are easily detached, tend to crust, and produce high rates of runoff.

Soils have varying resistance to blowing wind conditions and are grouped by erodibility to indicate the susceptibility to blowing. There is a close correlation between soil blowing and the size and durability of surface aggregates (or "clods"), fragments, organic matter, and the reaction of iron and carbonates in the soil. Soils assigned to Group 1 are the most susceptible to wind erosion, and those assigned to Group 8 are the least susceptible.

The hazard of off-road erosion and hazard of on road erosion factors are based on slope and soil erodibility factor K. The rating indicates whether erosion is likely, if erosion-control measures or maintenance such as revegetation are advised, if off-site damage is likely, and if erosion control measures would be costly or impractical.

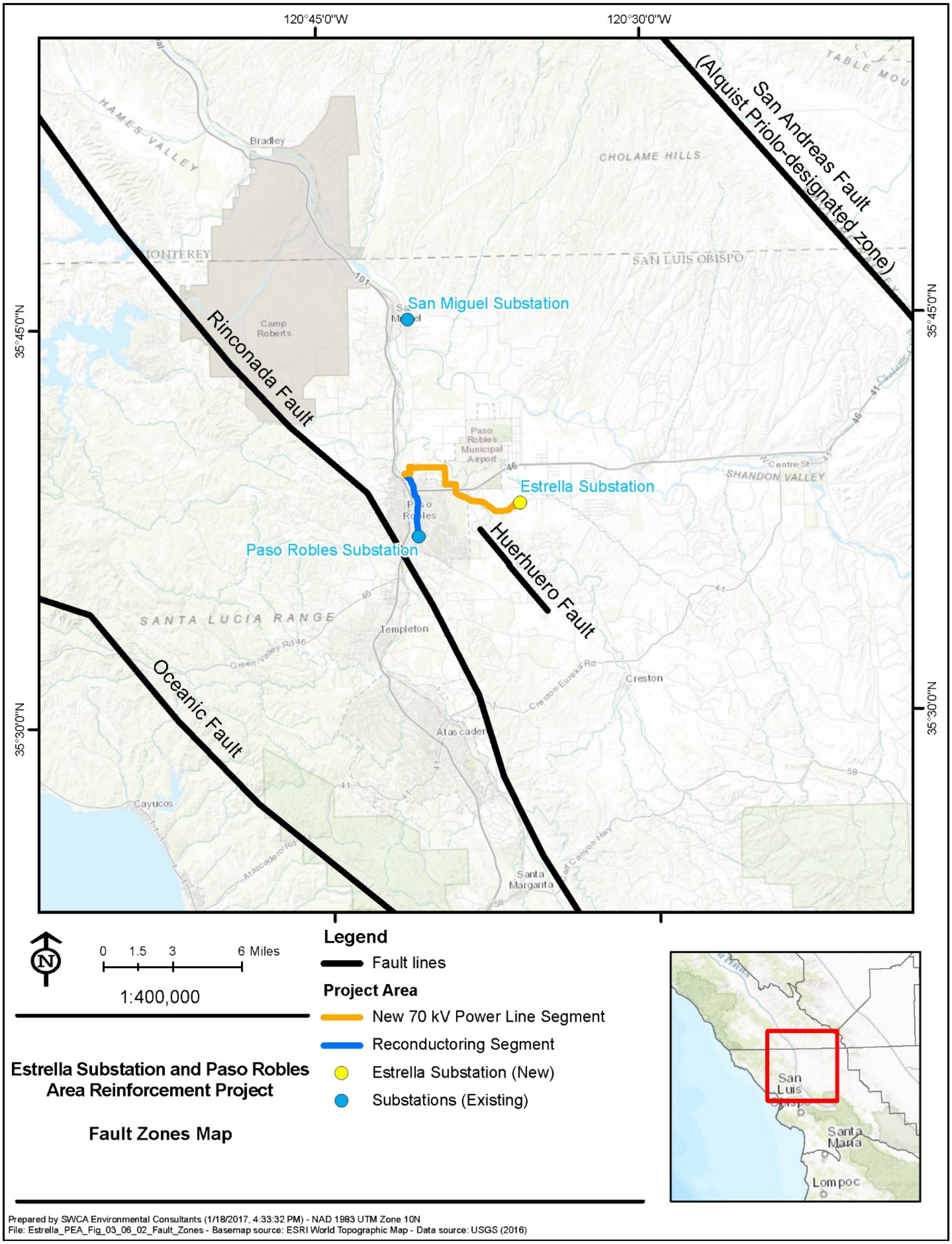
3.6.3.5 Seismicity

The Alquist-Priolo Act requires the establishment of "Earthquake Fault Zones" along known active faults in California. A fault is considered active if it has generated earthquakes accompanied by surface rupture during historic time (approximately the last 200 years) or has shown evidence of fault displacement during the Holocene period (approximately the last 11,000 years) (Bryant and Hart 2007). A fault is considered potentially active if there is evidence of fault displacement during the Quaternary period (approximately the last 1.6 million years). A fault is considered inactive if the most recent documented fault displacement pre-dates the Quaternary period. A regional map of the fault zones in proximity to the site using data from a CGS source is included as Figure 3.6-2, Fault Zones Map.

Faults generally produce damage in two ways: ground shaking and surface rupture. Seismically-induced ground shaking covers a wide area and is greatly influenced by the distance of the site to the seismic source, soil conditions, and depth to groundwater. Surface rupture is limited to very near the fault. Other hazards associated with seismically-induced ground shaking include earthquake-triggered landslides and tsunamis. Tsunamis and seiches are associated with ocean surges and inland water bodies, respectively.

There are no active faults crossing the project area. The major fault zones in the area are the San Andreas Fault, Rinconada Fault, Huerhuero Fault, and Oceanic Fault and are further described below. The structural trend in the area is northwest to southeast, controlled mainly by the San Andreas Fault. Most of the faults within San Luis Obispo County have not been active in recent geologic times, although movement may occur along one or several of these faults.

Figure 3.6-2. Fault Zones Map



Rinconada Fault

The closest substantial fault zone to the project area is the potentially active Rinconada Fault, which is located approximately 0.4 mile south west of the project area near Paso Robles Substation. The Rinconada Fault crosses Paso Robles in a southeasterly direction at US 101 just south of Spring Street. A trace of the fault runs northward along Spring Street, corresponding to a line of hot springs that once existed in this area but have since been capped and buried (County of San Luis Obispo 1999). Although definitive geologic evidence of Holocene surface rupture has not been found on the Rinconada Fault, it was regarded as an earthquake source for the California Geological Survey (CGS) Probabilistic Seismic Hazards Assessment (PSHA) because of the postulated slip rate of 1±1 mm per year, and the calculated maximum magnitude of 7.3 (Rosenberg, Lewis, and Clark 2009).

Huerhuero Fault

One known inactive fault zone, the Huerhuero Fault, is located approximately 1.2 miles south of the project area and mapped trending northwest along Huerhuero Creek south of State Route (SR) 46. The fault is a possible extension of the potentially active La Panza Fault, located about 12 miles southeast of Paso Robles, near Creston. This fault is not considered to be active or potentially active, and is classified as an "undivided Quaternary fault"—a fault that has evidence of displacement in the last 1.6 million years (Fugro West 1995).

San Andreas Fault

The San Andreas fault zone is located 18 miles east of the project area near Cholame and is the primary surface boundary between the Pacific and North American plates. There have been numerous historic earthquakes along the San Andreas Fault, and it is generally considered to pose the greatest earthquake risk to California. In the Paso Robles area, most earthquakes detected have originated from movement along the San Andreas Fault and it is the primary source of potential ground shaking (City of El Paso de Robles 2003). The highest recorded magnitude earthquake on the San Andreas Fault in the San Luis Obispo County area was a magnitude 6.0 earthquake recorded near Shandon, CA, located approximately 17 miles east of Paso Robles, in 2004 (USGS 2016c). The 2002 Probabilistic Seismic Hazard Assessment deemed this fault capable of a magnitude 7.4 earthquake, while the recent UCERF3 (third Uniform California Earthquake Rupture Forecast) report estimates an earthquake with a magnitude greater than 8 has a 7% likelihood to occur between 2014 and 2044 (Cao et al 2002; Field and WGCEP 2015).

Oceanic Fault

The Oceanic Fault zone is a seismically active fault zone, located in coastal Central California, that lies offshore and in the Santa Lucia mountains, north of Cambria near Hearst Castle. The Oceanic Fault is part of a fault system that stretches from Vandenberg Air Force Base in the south to the Golden Gate Bridge in the north. This fault zone was the source of the San Simeon earthquake on December 22, 2003. The event was located 6.8 miles northeast of San Simeon, and 24 miles northwest of Paso Robles, where the brunt of the damage occurred (City of El Paso de Robles, 2006). The strong shaking during the main-shock reached 47% of the force of gravity at the Templeton Hospital grounds. The shallow but powerful earthquake uplifted the Santa

Lucia Mountains and triggered a vigorous aftershock sequence. It is unknown whether any faults near the epicenter ruptured during the quake, but evidence of landslides and liquefaction have been found.

3.6.3.6 Strong Ground Motion

The project is not located within an active fault zone as defined by the Alquist-Priolo Act; however, the project is located in an area that is subject to ground shaking from earthquakes generated on the Rinconada Fault and other faults associated with the Coast Ranges such as the San Andreas Fault. Shaking from an earthquake can result in structural damage and can trigger other geologic hazards such as liquefaction. Ground shaking is controlled by the earthquake magnitude, duration, and distance from the source. Ground conditions also influence impacts from strong ground motions. Seismic waves attenuate with distance from their sources, so estimated bedrock accelerations are highest in areas closest to the source. Local soil conditions may amplify or dampen seismic waves as they travel from the underlying bedrock to the ground surface.

Ground motions for the project were calculated using the DOC Ground Motion Interpolator (DOC 2008), which uses the 2008 PSHA Model to obtain the ground motions for the site. Peak ground acceleration (PGA) was obtained for the ground motion with a 10% probability of being exceeded in 50 years, or a 475-year return period. These ground motions are provided for bedrock conditions and are corrected using National Earthquake Hazards Reduction Program soil corrections to calculate site response in soft rock and alluvium. The values were obtained for Paso Robles Substation and Estrella Substation for firm rock, soft rock, and alluvium.

According to available information and the calculated PGA values below, the project will likely be categorized as alluvium, between a PGA of 0.345 and 0.369 g ("g" is the acceleration due to Earth's gravity, equivalent to g-force). This range is considered a "low to moderate" value for the state of California, where PGA values can range from 0.1 g to over 1.0 g. More than three-fourths of the population of the state resides in counties with seismic hazards calculated to be above 0.4 g (DOC and USGS 1996). Table 3.6-3 lists the peak ground acceleration for the project area according to substrate type.

Table 3.6-3. Peak Ground Acceleration (PGA)

Peak Ground Acceleration	Firm Rock	Soft Rock	Alluvium
Paso Robles Substation	0.301g	0.324g	0.345 g
Estrella Substation	0.325g	0.349g	0.369g

USGS developed an Instrumental Intensity scale which maps peak ground acceleration and peak ground velocity on an intensity scale similar to the felt Mercalli scale. Generally speaking, PGA values up to 0.34 g have an instrumental intensity of VII, perceived shaking of "Very Strong", and "Moderate" potential damage. PGA values above 0.34 g and up to 0.65 g have an instrumental intensity of VIII, "Severe" perceived shaking, and "Moderate to heavy" potential damage.

3.6.3.7 Landslides

A landslide is a mass of rock, soil, or debris that has been displaced downslope by sliding, flowing, or falling. Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structure, earthquakes, or a combination of these factors. Landslides can result in damage to property and cause buildings to become unsafe either due to distress or collapse during sudden or gradual slope movement. Structures constructed in steep terrain, possibly on stable ground, may also experience landslide hazards if they are sited in the path of potential mud flows or rockfall hazards.

One of the main hazards associated with the Salinian domain underlying the project is landslide potential in hillsides of moderate to steep slopes that have experienced large to moderate size landslides. The project area is located in an area with a range of topography ranging from relatively flat (0 to 1% slope) to relatively steep (greater than 50% slopes), with steepest grades generally occurring along the east bank of the Salinas River, along North and South River Road. Although the City General Plan maps indicate that the project is located in areas of low and moderate landslide risk (City of El Paso de Robles 2003), the County General Plan also identifies areas of high risk potential (County of San Luis Obispo 1999) as is shown on Figure 3.6-3, Landslide Potential Map. The new 70 kV power line segment generally crosses areas of high landslide potential west of Huerhuero Creek. The reconductoring segment generally encounters areas of high landslide potential along hillsides east of Salinas River north of River Oaks Drive.

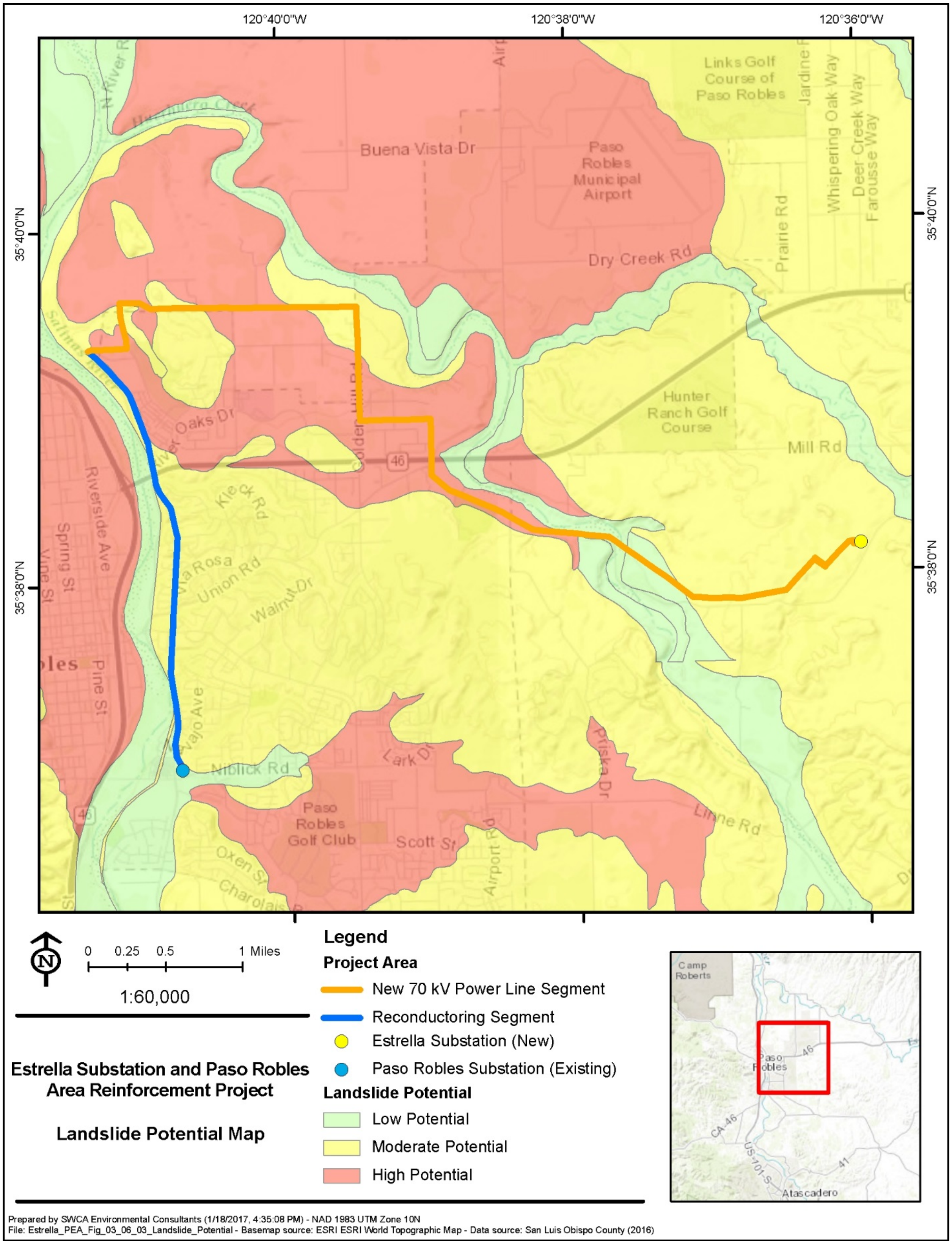
3.6.3.8 Subsidence

Subsidence, which is the downward displacement of a large portion of land, has affected many areas in California, including portions of San Luis Obispo County.

Compaction, one of the consequences of excessive groundwater withdrawal from an aquifer that lacks a rigid structure, can cause lowering, or subsidence, of the ground surface. Alluvial deposits along the Salinas River and their tributaries have a long history of water well use and heavy groundwater extraction. As discussed in Section 3.9, Hydrology and Water Quality and Section 3.17, Utilities and Service Systems, the region primarily relies upon groundwater wells for both urban and agricultural uses. As the population of San Luis Obispo County has grown, land has been converted from dry farming and grazing to irrigated agriculture and urban development. Areas most vulnerable to subsidence are those underlain by loose, compressible, clay-rich soils combined with excessive groundwater withdrawal and general lowering of the water table (County of San Luis Obispo 1999).

Hydrocompaction occurs when open-textured soils become saturated with water for the first time, lose strength, and consolidate under their own weight. Soils susceptible to hydrocompaction are generally geologically immature soils that have high void ratios and low densities.

Figure 3.6-3. Landslide Potential Map



Tectonic subsidence, which occurs suddenly as a result of soil compaction due to strong ground shaking during earthquakes, results in the compaction of loose, non-cohesive soils, and could occur in parts of San Luis Obispo County where the groundwater surface is deep. Loose to medium dense, uniformly graded sands are most susceptible. In areas with shallow groundwater, liquefaction is more likely in the event of significant seismic shaking. The potential for ground subsidence due to earthquake motion is largely dependent on the magnitude, duration, and frequency of the earthquake waves.

3.6.3.9 Erosion

Erosion is the process by which rocks, soil, and other land materials are abraded or worn away from Earth's surface over time. The rate of erosion depends on many factors, including soil type and geologic parent materials, slope and placement of soils, and human activity. The potential for erosion is highest in loose, unconsolidated soils. The steepness of slopes and absence of vegetation are also factors that increase the natural rates of erosion. Thus, erosion potential is high in steep, unvegetated areas, especially those disturbed by grading or other construction activities.

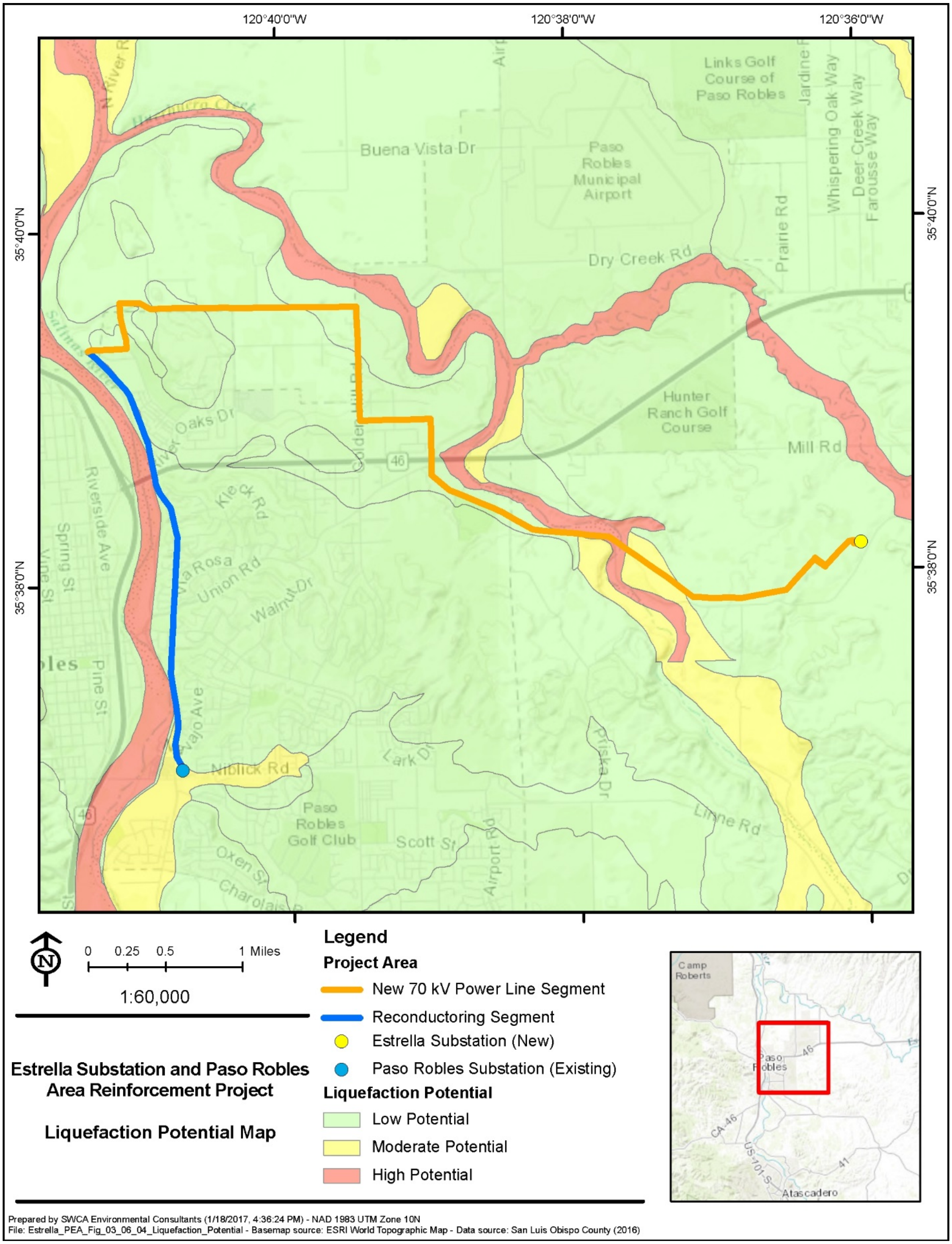
A soil's susceptibility to erosion varies and is a function of its characteristics, such as soil texture, soil structure, topography, amount of vegetative cover, and climate. Erosion from water mainly occurs in loose soils on moderate to steep slopes, particularly during high-intensity storm events. As shown above in Table 3.6.2, Soil Characteristics, the topography of project components range from relatively flat to steep slopes greater than 50%, and the potential for erosion ranges from low to very severe. Erosion as a result of water runoff ranges from low to high, whereas erosion as a result of wind is generally moderate.

3.6.3.10 Liquefaction

Similar to Section 3.6.3.7, Landslides, one of the main hazards associated with the Salinian domain underlying the project is liquefaction or seismic related settlement of alluvium in the low-lying areas. Liquefaction is a phenomenon in which saturated, cohesionless soils, such as sand and silt, temporarily lose their strength and liquefy when subjected to dynamic forces, such as intense and prolonged ground shaking. The vast majority of liquefaction hazards are associated with sandy and silty soils of low plasticity (CGS 2008).

In order to be susceptible to liquefaction, potentially liquefiable soils must be saturated or nearly saturated. In general, liquefaction hazards are most severe in saturated soils within the upper 50 feet of the ground surface, although the phenomenon can occur deeper than 100 feet. The potential for liquefaction increases with shallower groundwater. As discussed in Section 3.9, Hydrology and Water Quality, groundwater data in the vicinity of the project is variable and has been generally reported in recent data recordings to be as high as 30 feet below ground surface at a well 3 miles north of Estrella Substation (California Department of Water Resources [DWR] 2015) to as low as 340 feet from reports by a nearby property owner in the county.

Figure 3.6-4. Liquefaction Potential Map



Areas of Paso Robles that have a high potential to be underlain by potentially liquefiable sediments are those areas underlain by younger alluvium (Qa). Geologic mapping indicates that most of Paso Robles is underlain by late Pleistocene and older alluvial deposits (Qoa) and Paso Robles Formation (QTp) that have a moderate potential to be underlain by liquefiable soils. Portions of the city that are located on recent alluvium in the low-lying areas adjacent to the Salinas River (or its tributaries) appear to have the highest potential for liquefaction (County of San Luis Obispo 1999). The project is located largely in mapped areas of low potential for liquefaction as shown in Figure 3.6-4, Liquefaction Potential, although areas in and across waterways such as Huerhuero Creek and Salinas River are designated as moderate to high potential.

Groundwater was not encountered at geotechnical investigation borings drilled at Estrella Substation or along the 70 kV power line route. At one boring west of the reconductoring segment, near the west terminus of Navajo Avenue, groundwater was encountered at a depth of approximately 19 feet. Soil at this location was found to consist of loose to medium-dense silty and sandy soils between depths of 15 to 29 feet and may be susceptible to liquefaction. However, the reconductoring segment in this area is approximately east and upland of the boring site in older formation soils and liquefaction was not identified as a design concern.

3.6.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts related to geology and soils derived from Appendix G of the CEQA Guidelines, provide APMs, and assess potential project-related construction and operational geologic impacts.

3.6.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts related to geology and soils were evaluated for each of the criteria listed in Table 3.6-1, as discussed in Section 3.6.4.3, Potential Impacts.

3.6.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs as described in Table 3.6-4 (see Section 3.1, Air Quality, for APMs related to dust control; Section 3.8, Hazards and Hazardous Materials, for APMs related to hazardous substance control and emergency response; and Section 3.9, Hydrology and Water Quality, for APMs related to protection of sensitive aquatic features):

Table 3.6-4. Applicant Proposed Measures for Geology and Soils

APM No.	Description
	GEOLOGY AND SOILS
APM GEO-1	**Soft or Loose Soils**. Soft or loose soils, such as sands and loamy sands, are likely to be encountered during construction. Where soft or loose soils are encountered during design studies or construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve soft or loose soils. Such measures may include the following: • Locating construction facilities and operation away from areas of soft and loose soil. • Over-excavating soft or loose soils and replacing them with non-expansive engineered fill. • Increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction. • Treating soft or loose soils in place with binding or cementing agents. • Construction activities in areas where soft or loose soils are encountered may be scheduled for the dry season, as necessary, to allow safe and reliable equipment access.

3.6.4.3 Potential Impacts

Potential direct and indirect project impacts related to geology and soils were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during both the construction phase and the operation and maintenance phase. As discussed below, no significant impacts will occur.

As described in Chapter 2.0, Project Description, the project includes:

- Construction and operation of the 230 kV and 70 kV Estrella Substation;
- Construction of approximately 7 miles of new 70 kV power line; and
- Reconductoring of approximately 3 miles of existing 70 kV power line.

In addition to the new permanent facilities, temporary workspace and disturbance will be required to facilitate construction of the project. The temporary footprint of the project includes disturbances associated with particular construction components, including but not limited to open-cut trenching for installation of the telecommunications line, the use of temporary work areas, the installation of crossing guard structures, the use of staging areas, the construction of temporary access roads, and the use of helicopter landing zones.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to geology and soils are anticipated at this time as a result of this future project.

Geology-a: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

Geology-a.i) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? *(No Impact)*

Construction

In the unlikely event of an earthquake, construction workers could be exposed to hazards from strong seismic ground shaking. Project construction will not substantially increase these risks of exposure over typical risks of exposure throughout the region. Due to the short duration of construction, no active faults at the project sites, and the low probability of a strong seismic event occurring during construction, no impacts related to fault rupture will occur.

Estrella Substation

No known active faults are located on or near Estrella Substation, nor is the site within an Alquist-Priolo Earthquake Fault Zone. Therefore, no impacts related to fault rupture will occur.

Power Line Route

No known active faults underlie the power line route segments. The nearest potentially active fault is the Rinconada Fault, which is located approximately 0.4 mile southwest of Paso Robles Substation. Paso Robles Substation is located in the southern-most point of the reconductoring segment, and the reconductoring will include the replacement of conductors and pole structures along the same route as the existing power line, within approximately 10 feet of existing pole locations. However, the total number of structures post construction will be similar to what currently exists along the reconductoring segment and at Paso Robles Substation. Therefore, no impacts related to fault rupture will occur.

Operation and Maintenance

Estrella Substation

No known active faults are located on or near Estrella Substation, nor is the site within an Alquist-Priolo Earthquake Fault Zone. Therefore, no impacts related to fault rupture will occur from operations and maintenance.

Power Line Route

No known active faults underlie the power line segments. The nearest potentially active fault is the Rinconada Fault, located approximately 0.4 mile southwest of Paso Robles Substation. Operation and maintenance of the reconductoring segment will be similar to existing conditions. Therefore, no impacts related to fault rupture will occur.

Geology-a.ii) Strong seismic ground shaking? *(Less than Significant)*

Construction

In the unlikely event of an earthquake, construction workers could be exposed to hazards from strong seismic ground shaking. Project construction will not substantially increase these risks of exposure over typical risks of exposure throughout the region. Due to the short duration of project construction (approximately 7 months), and the low probability of a strong seismic event occurring during this timeframe, the potential for impacts from a strong seismic event will be less than significant.

Estrella Substation

A high-magnitude earthquake on one of the regional faults (see Figure 3.6-2) could result in moderate intensity ground shaking at Estrella Substation. Estrella Substation is located on the alluvial Paso Robles Formation, which tends to experience greater ground-shaking intensities than areas located in hard rock. While potential for an earthquake to occur during the construction period is low, all work will comply with federal and state OSHA requirements, which will help minimize risks to workers. Implementation of APM GEN-1 (WEAP Training Program) will include safety management procedures to further minimize impacts to workers should a seismic event occur. Moreover, the substation is located in a rural area and will not be located immediately adjacent to occupied structures.

Implementation of geotechnical report recommendations will ensure that the design and construction of Estrella Substation facilities and structures will incorporate project-specific design parameters required by applicable federal and state laws. Further, project components will be designed in accordance with CPUC G.O. 174, which specifies minimum construction material requirements and calculations for foundations for utility safety, to withstand damage from ground rupture and seismic shaking. As a result, impacts related to seismic shaking will be less than significant. Implementation of APMs GEN-1 and GEO-1 (Soft or Loose Soils) which will employ other appropriate measures to avoid, accommodate, replace, or improve soft or loose soils if they are encountered during construction will further reduce already less-than-significant impacts.

Power Line Route

A high-magnitude earthquake on one of the regional faults (see Figure 3.6-2) could result in moderate intensity ground shaking along the 70 kV power line route, including the reconductoring segment. The power line route generally overlies alluvial geologic formations which tend to experience greater ground-shaking intensities than areas located in hard rock. While potential for an earthquake to occur during the construction period is low, all work will comply with federal and state OSHA requirements, which will help minimize risks to workers should a seismic event occur during construction. Implementation of APM GEN-1 (WEAP Training Program) will include safety management procedures to further minimize impacts to workers should a seismic event occur. Additionally, much of the new power line route is located in a generally rural agricultural area and is not located immediately adjacent to occupied structures. Further, structures associated with the new 70 kV power line and reconductoring segments will be engineered to meet loads generated by forces such as seismic activity, as required by CPUC G.O. 95. Lastly, installation of the new conductor and replacement structures will not increase the risk of loss, injury, or death from strong seismic shaking as compared to existing conditions. Thus, risks to people or structures from strong seismic ground shaking will be less than significant.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities at Estrella Substation will not involve the placement of new structures that will be subject to strong seismic ground shaking. During the day-to-day operational phase, the substation will be unattended as the substations will be operated and monitored remotely, which reduces the potential to expose people to hazards from ground shaking. Therefore, risks to people or structures from strong seismic ground shaking will be less than significant.

Power Line Route

Operation and maintenance activities will not ordinarily involve the placement of new structures that will be subject to strong seismic ground shaking or expose people or structures to new seismic hazards. Therefore, risks to people or structures from strong seismic ground-shaking will be less than significant.

Geology-a.iii) Seismic-related ground failure, including liquefaction? *(Less than Significant)*

Construction

Estrella Substation

Estrella Substation is located on sandy Arbuckle soils and loose clay Nacimiento soils underlain by the alluvial Paso Robles Formation. Liquefaction is not likely to occur in soils at the Estrella Substation site as groundwater in this vicinity is greater than 50 feet bgs (reported to be 340 feet deep, per Section 3.6.3.10, Liquefaction). The substation will be constructed in accordance with recommendations provided in the geotechnical report and as required by CPUC G.O. 174. Therefore, risks to people or structures from seismic-related ground failure including liquefaction will be less than significant. Implementation of APM GEO-1 (Soft or Loose Soils) will incorporate preventative measures such as over-excavating soft or loose soils and replacing them with non-expansive engineered fill, or treating soft or loose soils in place with binding or cementing agents. As a result, implementation of APM GEO-1 will further reduce already less-than-significant impacts involving risks to people or structures from seismic-related ground failure including liquefaction.

Power Line Route

Liquefaction is most common in areas with shallow groundwater (i.e., less than 50 feet bgs) dominated by granular, unconsolidated materials. Areas with the highest risk for liquefaction occur along the creeks where groundwater is expected to occur near the surface. The power line route is underlain by the alluvial Paso Robles Formation and a variety of sandy loam soils with a moderate potential for liquefaction. Regional reports have indicated levels anywhere between 50 feet to 340 feet deep.

Geotechnical borings along the 70 kV power line route did not encounter groundwater. At one boring west of the reconductoring segment, near the west terminus of Navajo Avenue, groundwater was encountered at a depth of approximately 19 feet. However, the reconductoring segment in this area is generally upland of the boring site, approximately 20 feet higher in elevation or greater, and as much as 100 feet higher in elevation on ridgelines. The reconductoring segment primarily occurs in older formation soils and liquefaction was not identified as a design concern. Additionally, due to relatively dry climactic conditions, an ongoing drought, and groundwater depths likely occurring below 100 feet, soils underlying the power line route are less likely to experience liquefaction than similar saturated soils.

The power line route will be engineered to meet loads generated by forces such as seismic activity. While the reconductoring segment will be constructed in areas mapped as having a moderate liquefaction risk, installation of the new conductor and replacement structures will not increase the risk of loss, injury, or death from seismic ground failure or liquefaction as compared to existing conditions. Therefore, risks to people or structures from seismic-related ground failure or liquefaction will be less than significant. Implementation of APM GEO-1 (Soft or Loose Soils) will attenuate potentially excessively sandy or loose soils, which will further reduce already less-than-significant impacts.

Operation and Maintenance

Operation and maintenance activities associated with Estrella Substation and the power line route will not involve the placement of new structures that will be subject to strong seismic ground shaking or expose people or structures to new seismic hazards. Further, the substation is located in a rural area and will not be located immediately adjacent to occupied structures. Therefore, risks to people or structures from strong seismic ground shaking during operation and maintenance of Estrella Substation and the power line route will be less than significant.

Geology-a.iv) Landslides? *(Less than Significant)*

Construction

Estrella Substation

Estrella Substation is located on agricultural lands with mild slopes and is in a moderate-hazard area for landslides, as indicated by the *City of Paso Robles General Plan* and the *County of San Luis Obispo General Plan*. Grading of the substation site will not create new steep slopes and the substation will be designed in accordance with the engineering and design measures provided in the geotechnical report. Construction of the substation will not cause a landslide. Therefore, impacts will be less than significant.

Power Line Route

The power line route is located in areas of low and moderate landslide risk as indicated by the *City of Paso Robles General Plan* and in areas of low, moderate, and high potential as indicated by the *County of San Luis Obispo General Plan*. The majority of the new power line segment is located on level ground with slopes of less than 30%. Areas with the greatest slopes occur along the reconductoring segment near River Road. However, installation of new conductors and replacement poles will not change the line's susceptibility to damage from landslide beyond the existing conditions of the power line. The power line will be designed in accordance with the engineer design measures specified in the geotechnical report and will not cause a landslide. Therefore, impacts related to landslides along the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities will not involve construction or grading of new slopes. As a result, no impact will occur.

Power Line Route

Operation and maintenance activities associated with the power line route will not involve construction or grading of new slopes. Aerial and ground inspections of the power line will be performed in conjunction with inspections of existing lines in the area and will not increase exposure of personnel to potential landslide risks. Impacts from exposure to landslides during the operation and maintenance phase will be similar to the existing conditions. Therefore, no impact will occur.

Geology-b: Result in substantial soil erosion or the loss of topsoil? *(Less than Significant)*

Construction

Estrella Substation

Construction of Estrella Substation will involve site preparation activities including vegetation removal, site grading, and cut and fill. Site soils are moderately susceptible to erosion during construction. The substation site has a gradient toward Union Road with generally mild slopes. A disturbed site left unprotected could cause erosion toward Union Road and its roadside drainage ditch. However, the project proponents will implement a Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practices (BMPs) as required by the Clean Water Act (CWA). The SWPPP will include an Erosion and Sedimentation Control Plan (ESCP) and will be prepared in accordance with Regional Water Quality Control Board guidelines and other applicable BMPs. The SWPPP and ESCP will include measures that will stabilize disturbed areas and reduce erosion. Although topsoil reuse is not feasible within the fenced substation area, SWPPP and ESCP measures will apply to exterior temporary work areas and conserve topsoil where applicable. Construction BMPs will remain in place at the completion of construction until final site stabilization is achieved either through revegetation or installation of graveled surfaces. The potential for substantial soil erosion or loss of topsoil will be less than significant. Implementation of APM AIR-3 (Minimize Fugitive Dust) includes dust emission minimization measures that will protect soil from wind erosion and minimize surface water runoff and will further reduce less-than-significant impacts.

Power Line Route

Ground disturbance will occur from preparing new pole and tower sites, augering holes for new pole and tower foundations, removal of existing poles, establishing new access roads and staging areas, and, to a limited extent, use of existing access roads that are not paved. During reconductoring work activities, replacement of existing poles will require excavation to accommodate new structures, some of which will occur in soils on slopes that have a moderate to high wind and/or water erosion potential (see Table 3.6.2, Soil Characteristics). Following pole installation, soils will be backfilled and compacted.

In addition, minimal grading and vegetation clearing may be required for pole installation, work area improvements, and access road improvements. Where possible, work areas such as landing zones and pull and tension sites will be left with vegetation intact and prepared with matting or gravel on top in order to preserve existing vegetation. In areas requiring clearing activities, vegetation will be mowed or grubbed, leaving root systems intact wherever possible, to encourage resprouting and minimize erosion. The majority of work areas will be accessed by construction vehicles using existing access roads, some of which are unpaved. In areas of steep terrain or limited access, work areas may be accessed by helicopter. Construction workers will walk to these work areas from the nearest access road or along an easement or be transported by the helicopter. Using existing access roads for power line work will not change drainage patterns or increase erosion potential because minimal grading or slope stabilization activities at the pole and tower locations is anticipated. As a result, soil disturbance and vegetation removal will be minimized, thereby decreasing opportunities for short-term erosion at the work areas.

Development of a SWPPP and an ESCP will protect soils on steep slopes and graded areas and minimize soil erosion and sedimentation. BMPs will ensure soil stockpiles are protected from storm events and are located away from and/or downgradient from waterways. Sediment control BMPs will be implemented to avoid excessive disturbance of steep slopes, control vehicle traffic, and implement a dust-control program. Excess soil at work sites will be feathered around construction areas, hauled off-site to fill other excavations, or sent to an off-site disposal facility. A backhoe will be used to place gravel around tubular steel pole foundations after formwork has been removed and to groom the surrounding area, where appropriate. Construction debris, including old poles, will be removed using a line truck with a trailer to an area service center or staging area, as needed, for recycling or disposal.

Soil erosion or loss of topsoil during project construction will be minimized by a number of construction-related factors—the short duration of construction (approximately 7 months), the limited number and size of areas that will be graded and/or disturbed, and the use of standard and site-specific BMPs to minimize runoff. With these factors combined with implementation of a SWPPP, impacts related to soil erosion or loss of topsoil will be less than significant.

Operation and Maintenance

Operation and maintenance of Estrella Substation and the power line route will not cause soil erosion or loss of topsoil. Occasional minor surface disturbance may be required during inspections and maintenance or as-needed repair, but such disturbance will be temporary and small in size. Operation and maintenance work will not result in increased erosion or topsoil loss and therefore, no impacts associated with erosion or loss of topsoil will occur.

Geology-c: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? *(Less than Significant)*

Construction

Estrella Substation

Estrella Substation is located on relatively minor slopes with loose sandy and soft clay soils. As described in Impact Geology-a, impacts associated with seismic activities such as liquefaction and landslide will be minimized through implementation of design standards based on the geotechnical report and will be less than significant. Impacts will be further minimized through implementation of soil instability protection measures described in APM GEO-1 (Soft or Loose Soils). Land subsidence as a result of groundwater extraction is unlikely to occur and is less than significant, as discussed in Section 3.9, Hydrology and Water Quality. Therefore, impacts related to unstable geologic units or soils will be less than significant.

Power Line Route

The power line route is located on mild to moderate slopes with a variety of soils, including sandy soils and soft clay soils. As identified in the geotechnical investigation report, sandy soils close to the Huerhuero Creek channel on the power line route tended to be less dense than other alluvial soils. However, the report confirmed that soils beneath depths of 3 to 5 feet were determined not likely to be loose. As previously discussed, the effects of seismic activity have been taken into account in the design of the power line route and impacts associated with landslide or liquefaction. Impacts will be further minimized through implementation of design standards based on the geotechnical report. Further, the potential for land subsidence to occur as a result of groundwater extraction is less than significant, as discussed in Section 3.9, Hydrology and Water Quality. Therefore, impacts related to unstable geologic units or soils will be less than significant.

Operation and Maintenance

Operation and maintenance activities at Estrella Substation and the power line route will not involve new construction or introduce new soil stability hazards. Inspections and routine maintenance will occur on an occasional basis. Therefore, no impacts will occur.

Geology-d: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? *(Less than Significant)*

Construction

Estrella Substation

As shown in Table 3.6-2, Soil Characteristics, Estrella Substation is located on soils which vary in shrink-swell potential from low to high. A geotechnical investigation has revealed the site includes both soft clays and loose sandy soils. The project proponent's geotechnical report includes recommendations to excavate soils to a depth of 4 feet or until a stable soil is reached, "proof roll" soils, then backfill with more suitable material. These recommendations will be incorporated into the project design and construction. As a result, impacts related to expansive soils will be less than significant.

Power Line Route

As shown in Table 3.6-2, Soil Characteristics, the power line is located on soils which vary in shrink-swell potential from low to high. The geotechnical report includes recommendations to design the power line and those recommendations are incorporated into the proposed project design and construction. As a result, impacts related to expansive soils will be less than significant.

Operation and Maintenance

Operation and maintenance activities at Estrella Substation and the power line route will not involve new construction or additional soil disturbance on expansive soils. Therefore, no impacts will occur.

Geology-e: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? *(No Impact)*

Construction

Estrella Substation

Estrella Substation will not include an on-site waste disposal system; therefore, no impacts related to septic tanks or waste water disposal systems will occur.

Power Line Route

The power line facilities will not include an on-site waste disposal system; therefore, no impacts related to septic tanks or waste water disposal systems will occur.

Operation and Maintenance

Operation and maintenance activities at Estrella Substation and the power line route will not require the use of septic tanks or waste water disposal systems; therefore, no impacts related to septic tanks or waste water disposal systems will occur.

3.6.5 References

Bryant, W.A. (compiler). 2005. Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, version 2.0. California Geological Survey Web Page. Online: http://www.consrv.ca.gov/CGS/information/publications/QuaternaryFaults_ver2.htm. Accessed on August 8, 2016.

Bryant, W.A. and E.W. Hart. 2007. *Fault-rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps: Department of Conservation, California Geological Survey*. Special Publication 42, Interim Revision 2007.

California Department of Conservation (DOC). 1986. Fault-Rupture Hazard Zones in California Alquist-Priolo Earthquake Fault Zoning Act; Cholame Quadrangle Official Map. Division of Mines and Geology. Revised 1997.

____. 2002. *California Geomorphic Provinces*. California Geological Survey Note 36. Online: http://www.conservation.ca.gov/cgs/information/publications/cgs_notes. Accessed on August 8, 2016.

____. 2008. Ground Motion Interpolator. Online: http://www.quake.ca.gov/gmaps/PSHA/psha_interpolator.html. Accessed on August 8, 2016.

____. 2010. Fault Activity Map of California. Web page. Geologic Data Map No. 6. Online: http://maps.conservation.ca.gov/cgs/fam/. Accessed on August 3, 2016.

California Department of Conservation (DOC) and U. S. Geological Survey (USGS). 1996. *Probabilistic Seismic Hazard Assessment for the State of California*. California Division of Mines and Geology (DMG) Open File Report 96-08. Online: https://pubs.usgs.gov/of/1996/0706/report.pdf. Accessed December 11, 2016.

California Department of Water Resources (DWR). 2015. Water Data Library. Online: http://www.water.ca.gov/waterdatalibrary. Accessed December 11, 2015.

____. 2016. *Draft Technical Report – Atascadero Groundwater Basin – Basin Boundary Modification Application*. Online: http://atascaderobasin.com/wp-content/uploads/2016/02/DRAFT-Atas-Basin-Bndy-Mod-Tech-Rpt_2.21.16.pdf. Accessed on August 4, 2016.

California Geological Survey (CGS). 2008. *Guidelines for Evaluating and Mitigating Seismic Hazards in California*. Special Publication 117A. Online: California Geological Survey (CGS). 2008. Guidelines for Evaluating and Mitigating Seismic Hazards in California . Special Publication 117A. Accessed December 11, 2016.

____. 2010. *Probabilistic Seismic Hazards Assessment*. Online: http://www.conservation.ca.gov/cgs/rghm/psha. Accessed on August 8, 2016.

California Public Utilities Commission (CPUC). 2015a. *Rules for Overhead Electric Line Construction, General Order No. 95*. January 2015. Online: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M146/K646/146646565.pdf. Accessed July 2016.

California Seismic Safety Commission. 2003. *Earthquake Shaking Potential Map for the Central Coast Region Counties*. Online: http://www.seismic.ca.gov/pub/intensitymaps/ccoast_county_print.pdf. Accessed on August 3, 2016.

Cao, T., W.A. Bryant, B. Rowshandel, D. Branum, and C.J. Wills. 2003. *The Revised 2002 California Probabilistic Seismic Hazard Maps*. Online: http://www.conservation.ca.gov/cgs/rghm/psha/ofr9608#HAZARD%20MAP. Accessed on August 8, 2016.

City of El Paso de Robles. 2003. *City of El Paso de Robles General Plan, Safety Element*. Adopted December 16, 2003. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/SafetyElement.pdf. Accessed October 2016.

____. 2006. *Final Chandler Ranch Area Specific Plan – Environmental Impact Report*. State Clearinghouse No. 2004021038. Submitted by Rincon Consultants, Inc. Online: http://www.prcity.com/government/departments/commdev/planning/chandler-ranch_FEIR.asp. Accessed October 2016.

Clark, D.G., D.B. Slemmons, S.J. Caskey, D.M. DePolo. 1994. Seismotectonic framework of coastal central California. In Alterman, I.B., McMullen, R.B., Cluff, L.S., and Slemmons, D.B., eds., *Seismotectonics of the Central California Coast Ranges*. Geological Society of America Special Paper 292, p. 9–30.

Compton, R.R. 1966. Granitic and metamorphic rocks of the Salinian block, California Coast Ranges. In Bailey, E.H., ed., *Geology of northern California*. California Division of Mines and Geology Bulletin 190, p. 277–287.

County of San Luis Obispo. 1999. *County of San Luis Obispo General Plan, Safety Element*. December 1999. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf. Accessed July 2016.

_______. 2010. *County of San Luis Obispo General Plan. Conservation and Open Space Element.* May 2010. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed July 2016.

____. 2011. *Paso Robles Groundwater Basin Management Plan*. Online: http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/pdf/201103%20-%20Paso%20Basin%20Final%20GMP.pdf. Accessed July 2016.

Dehlinger, P., and B.A. Bolt. 1987. *Earthquakes and associated tectonics in a part of coastal central California*. Seismological Society of America Bulletin, v. 77, no. 6, p. 2056–2073.

Durham, David L. 1974. *Geology of the Southern Salinas Valley Area, California*. Geological Survey Professional Paper 819. Online: http://pubs.usgs.gov/pp/0819/report.pdf. Accessed on August 8, 2016.

Envicom Corporation. 1975. *Seismic Safety Element, San Luis Obispo County, California: Calabasas California*. Prepared for the San Luis Obispo County Planning Department, p. 2.90.

Field, E.H., and Working Group on California Earthquake Probabilities (WGCEP). 2015. *UCERF3: A new earthquake forecast for California's complex fault system*: U.S. Geological Survey 2015–3009, 6 p. Online: http://dx.doi.org/10.3133/fs20153009. Accessed October 2016.

Fugro West, Inc. 1995. *Technical Memorandum Discussing Preliminary Geotechnical Engineering Considerations for the Chandler Ranch Development in Paso Robles, California*. Prepared for: Del Webb Communities, Inc. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/chandler/FEIR/Appendix_F_Prelim_Geotechnical_Report.pdf. Accessed October 2016.

Galloway, D., D.R. Jones, and S.E. Ingebritsen. 1999. *Land Subsidence in the United States*. USGS Circular 1182. Reston, VA.

Jennings, C.W. and W.A. Bryant. 2010. Fault Activity Map of California. California Division of Mines and Geology, Geologic Data Map No. 6. Sacramento, CA.

Rosenberg, Lewis I., and Clark, Joseph C. 2009. Map of the Rinconada and Reliz Fault Zones, Salinas River Valley, California. U.S. Geological Survey Scientific Investigations Map 3059, scale 1:250,000 with pamphlet. Online: http://pubs.usgs.gov/sim/3059/. Accessed October 2016.

U.S Department of Agriculture Natural Resources Conservation Service (NCRS). 2016. Web Soil Survey. Online: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed July 2016.

U. S. Geological Survey (USGS). 1971. Geologic map of the Paso Robles quadrangle, California. Online: http://pubs.usgs.gov/of/1971/0087/plate-12.pdf. Accessed on August 8, 2016.

____. 1989. Abridged from *The Severity of an Earthquake, a U. S. Geological Survey General Interest Publication*. U.S. Government Printing Office: 1989-288-913. Online: http://pubs.usgs.gov/gip/earthq4/severitygip.html. Accessed July 2016.

____. 2008. *Geologic Hazards Science Center, 2008 Interactive Deaggregations*. Online: http://geohazards.usgs.gov/deaggint/2008/. Accessed May 19, 2015.

____. 2014. National Seismic Hazard Maps – 2008, PeakHorizontal Acceleration (%g) with 10% Probability of Exceedance in 50 Years. Online: http://earthquake.usgs.gov/hazards/products/conterminous/. Accessed July 2016.

____. 2015. 7.5 Minute Quadrangle Topographic Maps. Paso Robles Quadrangle. 1:24,000 Scale.

____. 2016a. National Elevation Dataset (NED) one third arc second digital elevation model (DEM) n33w117 1/3 arc-second 2013 1 x 1 degree. Online: http://viewer.nationalmap.gov/launch/. Accessed July 2016.

____. 2016b. *Quaternary Fault and Fold Database of the United States*. Online: http://earthquake.usgs.gov/hazards/qfaults/. Accessed July 2016.

____. 2016c. *Earthquake Hazards Program – Online Earthquake Catalog*. Available: http://earthquake.usgs.gov/earthquakes/search/. Accessed October 2016.

Wills, C.J., R.J. Weldon, and W.A. Bryant. 2007. *Appendix A: California Fault Parameters for the National Seismic Hazard Maps and Working Group on California Earthquake Probabilities 2007*. USGS Open File Report 2007-1437A and CGS Special Report 203A.

Working Group on California Earthquake Probabilities. 2013. *The Uniform California Earthquake Rupture Forecast, Version 3 (UCERF 3)*. Web site. U.S. Geological Survey Open-File Report 2013-1165 and California Geological Survey Special Report 228. Online: http://pubs.usgs.gov/of/2013/1165/pdf/ofr2013-1165.pdf. Accessed on August 8, 2016.

Working Group on Northern California Earthquake Potential. 1996. *Database of potential sources for earthquakes larger than magnitude 6 in northern California*. U.S. Geological Survey. Open-File Report 96-705.

3.7 GREENHOUSE GAS EMISSIONS

3.7.1 Introduction

This section describes potential greenhouse gas (GHG) emissions associated with the project construction, operation, and maintenance, and concludes that impacts will be less than significant. GHG emissions were calculated and reported in carbon dioxide (CO_2) equivalents (CO_2e) for CO_2, nitrous oxide (N_2O), and methane (CH_4) emissions from on-road, off-road, and helicopter emissions. Additionally, operational emissions of sulfur hexafluoride (SF_6) associated with potential leakage from gas-insulated switchgear at the substations are also estimated. Implementation of the Applicant-Proposed Measures (APMs) described in Section 3.7.4.2, Applicant-Proposed Measures, as well as those described in Section 3.3, Air Quality, will further reduce already less-than-significant impacts. GHG calculations for the project are provided in Appendix C.

The project's potential effects on GHG emissions were evaluated using the criteria set forth in Appendix G of the CEQA Guidelines. The conclusions are summarized in Table 3.7-1, CEQA Checklist for Greenhouse Gas Emissions, and discussed in more detail in Section 3.7.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.7-1. CEQA Checklist for Greenhouse Gas Emissions

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GASES ***Would the project:***				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases?	☐	☐	☐	☒

3.7.2 Regulatory Background and Methodology

3.7.2.1 Regulatory Background

Federal

Clean Air Act

The U.S. Supreme Court decision in *Massachusetts et al. v. Environmental Protection Agency et al.* (Supreme Court Case 05-1120) held that the U.S. Environmental Protection Agency (USEPA) has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the federal Clean Air Act (CAA). On April 17, 2009, USEPA found that CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6 may contribute to air pollution and may endanger public health and welfare. USEPA has established reporting regulations that require specific facilities and industries to report their GHG emissions annually under Code of Federal Regulations (CFR) Title 40.

- **40 CFR Part 98. Mandatory Reporting of Greenhouse Gases Rule.** This rule requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons (MT) of CO_2e emissions per year.
- **40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.** USEPA has mandated that Prevention of Significant Deterioration (PSD) and Title V requirements applies to facilities whose stationary source CO_2e emissions exceed 100,000 tons per year.

State

Executive Order S-3-05

State Executive Order S-3-05 established GHG reduction targets for the state of California. The targets called for a reduction of GHG emissions to 2000 levels by 2010; a reduction of GHG emissions to 1990 levels by 2020; and a reduction of GHG emissions to 80% below 1990 levels by 2050. The California Environmental Protection Agency (Cal/EPA) secretary is required to coordinate development and implementation of strategies to achieve the GHG reduction targets.

Executive Order B-30-15

In April 2015, Governor Brown signed Executive Order B-30-15 that added the intermediate target of reducing GHG emissions to 40% below 1990 levels by 2030.

Global Warming Solutions Act of 2006

In 2006, the California State Legislature signed the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32), which provides the framework for regulating GHG emissions in California. This law requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to 1990 levels by 2020. The statewide 2020 emissions limit is 427 million MT CO_2e (CARB 2007).

Part of CARB's direction under AB 32 was to develop a scoping plan that contains the main strategies that California will use to reduce GHG emissions that cause climate change. The scoping plan includes a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program (CARB 2008a).

CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions came into effect in January 2009. However, this project is not impacted by these regulations and does not require mandatory reporting.

CARB published a Preliminary Draft Staff Proposal titled *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act* in October 2008 that included a proposal that non-transportation-related sources with GHG emissions less than 7,000 MT CO_2e per should be presumed to have a less-than-significant impact (CARB 2008b).

On December 30, 2009, the California Resources Agency adopted amendments to the CEQA Guidelines to include analysis of GHG emissions in CEQA documents, deferring significance thresholds to the lead agency. The amendments became effective on March 18, 2010.

On May 19, 2015, Governor Brown, along with other international leaders, signed the "Subnational Global Climate Leadership Memorandum of Understanding," an agreement to limit the increase in global average temperature to below 2 degrees Celsius by setting a goal of limiting GHG emissions to 2 tons per capita by 2050. This limit is 80–95% below the 1990 GHG emission level (Under2MOU.org 2015).

Regulations for reducing SF6 emissions from gas-insulated switchgear were implemented as part of AB 32, mandating utility-wide reduction of SF6 emissions to a 1% leak rate by 2020.

Senate Bill 32 and Assembly Bill 197

On September 8, 2016, Governor Brown signed Senate Bill 32 (SB 32) and AB 197, which provide CARB with a statutory basis for updating its Scoping Plan to include a 2030 GHG emissions reduction target. In December 2016, as a result of Executive Order B-30-15, CARB imitated the 2030 Target Scoping Plan Update to reflect the 2030 reduction target outlined in EO B-30-15. Completion of the update and board approval is tentatively scheduled for spring 2017.

SB 32 and AB 197 created the Joint Legislative Committee on Climate Change Policies and require the committee to ascertain facts and make recommendations to the Legislature concerning the state's policies, investments, and programs related to climate change. AB 197 requires CARB to make the annual emissions of GHGs, criteria pollutants, and toxic air contaminants available on its web site for each facility that reports to the state board and air districts. Finally, this bill requires CARB to approve a statewide GHG emissions limit equivalent to the statewide GHG emissions level in 1990 to be achieved by 2020. CARB is required to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions.

Assembly Bill 1826

Governor Brown signed AB 1826 (Chapter 727, Statutes of 2014) in October 2014. AB 1826 requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. The law also requires local jurisdictions across California to implement organic waste recycling programs to divert organic waste generated by businesses, including multi-family residential buildings that consist of five or more units. AB 1826 was enacted to reduce the disposal of organic waste in landfills in effort to reduce GHG emissions from landfills, which is a part of the CARB Climate Change Scoping Plan.

Regional

San Luis Obispo County Air Pollution Control District

The California Air Pollution Control Officer's Association has established the Greenhouse Gas Reduction Exchange (GHG Rx) for GHG emission credits in California. Credits listed on the GHG Rx come from voluntary emission reduction projects and can be purchased to offset GHG emissions.

Air Pollution Control Districts act under state law and their discretionary requirements apply to utility projects.

The San Luis Obispo County Air Pollution Control District (SLOAPCD) regulates local air quality and air quality sources in San Luis Obispo County. SLOAPCD created the *CEQA Air Quality Handbook* to assist lead agencies, planning consultants, and project proponents in assessing the potential air quality impacts from industrial, residential, and commercial development (SLOAPCD 2012a). This handbook provides information on SLOAPCD's GHG thresholds for determining the significance of GHG emission impacts from proposed development and provides recommendations on the level of mitigation necessary to reduce those impacts. The document *Greenhouse Gas Thresholds and Supporting Evidence* (SLOAPCD 2012b) provides the reasoning for the established GHG threshold and evidentiary support.

Local

Because CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local (i.e., city and county) discretionary regulations. Furthermore, there are no local discretionary regulations.

3.7.2.2 Methodology

Air quality impacts were analyzed with the aid of the California Emissions Estimator Model (CalEEMod) version 2016.3.1. CalEEMod was designed in collaboration with the South Coast Air Quality Management District (SCAQMD) and other California air districts to calculate air and GHG emissions associated with land use projects (ENVIRON International Corporation and the California Air Districts 2016). This program analyzes both construction (short-term) and operational (long-term) emissions by utilizing both default values for specific geographic areas and typical land use projects as well as project-specific values such as construction schedules and equipment rosters. GHG calculations are provided in Appendix C.

One exception to the use of CalEEMod for this analysis was for SF_6, a powerful GHG that is used to insulate industrial circuit breakers. CalEEMod does not have the capacity to calculate SF_6 emissions from potential leaks and therefore these calculations were done separately based on USEPA-approved methodology and vendor specifications. The SF_6 calculations are also included in Appendix C.

Per USEPA 40 CFR 98, GHG emissions are quantified in carbon dioxide equivalent. CO_2e is calculated using a USEPA-defined formula that assigns a global warming potential (GWP) to GHGs. The GWP has been calculated to reflect how long a GHG compound remains in the atmosphere, on average, and how well it absorbs energy. Gases with a higher GWP absorb more energy per pound than gases with a lower GWP, contributing more to warming. For example, CH_4 has a GWP of 25, so 1 ton of CH_4 emissions is equal to 25 tons CO_2e. This method allows all GHG compounds to be considered together.

GHG emission calculations in this document are based on worst-case estimates of emissions to ensure presentation of a conservative environmental analysis. This analysis may be revised, as needed, to reflect any changes to the project plans.

3.7.3 Environmental Setting

GHGs are global concerns, unlike criteria air pollutants or toxic air contaminants that are of regional and/or local concern. Scientific research indicates that observed climate change is most likely a result of increased GHG emissions associated with human activity (IPCC 2013). Global climate change describes a collection of phenomena, such as increasing temperatures and rising sea levels, occurring across the globe due to increasing anthropogenic emissions of GHGs (USEPA 2009). GHGs contribute to climate change by allowing ultraviolet radiation to enter the atmosphere and warm the Earth's surface, but also prevent some infrared radiation from the earth from escaping back into space.

Global mean surface temperatures have already increased 1.5 degrees Fahrenheit, from 1880 to 2012. Additional near-term warming is inevitable due to the thermal inertia of the oceans and ongoing GHG emissions. However, climate change will impact regions differently and warming will not be equally distributed. Both observations and computer model predictions indicate that increases in temperature are likely to be greater at higher latitudes, where the temperature increase may be more than double the global average. Models also predict increases in duration, intensity, and extent of extreme weather events. Warming of surface air temperature over land will very likely be greater than over oceans (IPCC 2013).

As defined in AB 32, "greenhouse gas" or "greenhouse gases" include but are not limited to CO_2, CH_4, NOx, hydrofluorocarbons, perfluorocarbons, and SF_6. California is a substantial contributor to global GHG emissions. It is the second largest contributor in the United States and the 16th largest in the world (California Energy Commission 2006).

3.7.4 Applicant-Proposed Measures and Potential Impacts

3.7.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. CEQA allows for significance criteria established by the applicable air pollution control district(s) to be used to assess the impact of a project related to GHG emissions, at the discretion of the CEQA Lead Agency.

SLOAPCD encourages local governments to adopt a qualified GHG reduction plan that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG reduction plan, it can be presumed that the project will not have significant GHG emission impacts. This approach is consistent with the CEQA Guidelines, Section 15183.5. SLOAPCD has adopted a GHG reduction plan and has defined a threshold of significance for GHGs.

Per SLOAPCD's *CEQA Air Quality Handbook,* GHG emissions from construction projects must be quantified and amortized over the life of the project. The amortized construction emissions must be added to the annual average operational emissions and then compared to the operational thresholds in Section 3.5.1, Significance Thresholds for Project-Level Operational Emissions. To amortize the emissions over the life of the project, the total GHG emissions for the construction activities are divided by the project life (i.e., 30 years for the project). That number is then added to the annual operational phase GHG emissions. This total is then compared to the operational threshold for GHGs. The operational threshold of significance for GHGs as defined by SLOAPCD for stationary sources is 10,000 MT of CO_2e per year (SLOAPCD 2012a).

3.7.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs:

Table 3.7-2. Applicant Proposed Measures for Greenhouse Gas Emissions

APM No.	Description
	GREENHOUSE GAS EMISSIONS
APM GHG-1	**<u>Minimize Operational SF_6 Emissions</u>.** During operation and maintenance of Estrella Substation, the project proponents will: • Incorporate Estrella Substation into each of the project proponents' system-wide SF_6 emission reduction programs. CARB requires that company-wide SF_6 emission rate not exceed 1% by 2020. • Upon construction completion, the project proponents will have implemented a programmatic plan to inventory, track, and recycle SF_6 inputs, and inventory and monitor system-wide SF_6 leakage rates to facilitate timely replacement of leaking breakers. X-ray technology is used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing SF_6 handling and accidental releases. As active members of the

Table 3.7-2. Applicant Proposed Measures for Greenhouse Gas Emissions

APM No.	Description
	U.S. Environmental Protection Agency's SF_6 Emission Reduction Partnership for Electrical Power Systems, the project proponents have focused on reducing SF_6 emissions from their transmission and distribution operations. • Require that the breakers at Estrella Substation have a manufacturer's guaranteed maximum leakage rate of 0.5% per year or less for SF_6. • Maintain substation breakers in accordance with the project proponents' maintenance standards. • Comply with CARB's Early Action Items as these policies become effective.

3.7.4.3 Potential Impacts

Potential project impacts related to GHG emissions were evaluated against the CEQA significance criteria and are discussed in further detail in the following paragraphs. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase. Per SLOAPCD's *CEQA Air Quality Handbook*, GHG construction emissions will be amortized over a 30-year project lifetime, added to the operational GHG emissions, and then the combined amortized construction and operational GHG emissions will be compared to the significance threshold of 10,000 MT of CO_2e per year.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, construction and operation of approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line. Estrella Substation will be located within an unincorporated area of the San Luis Obispo County. The 70 kV power line route is located in San Luis Obispo County and the city of Paso Robles.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The estimated impacts of this future project are briefly discussed below where the analysis would differ from that of the project.

GHG-a: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less than Significant)

Construction

Construction of Estrella Substation and the 70 kV power line will emit approximately 1,415 MT of CO_2e during the approximately 7-month construction period. This amount is well below the SLOAPCD significance threshold of 10,000 MT CO_2e per year and, therefore, impacts related to GHG emissions due to construction will be less than significant. GHG emissions with and without implementation of APM GHG-1 are detailed in Table 3.7-3, Expected Emissions Reductions from APM GHG-1. With implementation of APM GHG-1 (Minimize Operational

SF_6 Emissions), the total project (construction and operation) CO_2e emissions will be reduced from 222 MT CO_2e/year to 174 MT of CO_2e/year, thereby further reducing this already less-than-significant impact.

Table 3.7-3. Expected Emissions Reductions from APM GHG-1

Measure	Baseline Emissions (metric tons CO_2e/year) [1]	Reduced Emissions (metric tons CO_2e/year) [2]	Reduction (metric tons CO_2e/year)	Percent Reduction (of Total Emissions)
Minimize Operational SF_6 Emissions	222	174	48	21.6

[1] Baseline emissions consist of amortized construction emissions (47 MT CO_2e/year) + operation & maintenance emissions calculated by CalEEMod (79 MT CO_2e/year) + SF_6 gas emission calculations prior to APM GHG-1 implementation (96 MT CO_2e/year).

[2] Reduced emissions consist of amortized construction emissions (47 MT CO_2e/year) + operation & maintenance emissions calculated by CalEEMod (79 MT CO_2e/year) + SF_6 gas emission calculations after implementing APM GHG-1 (48 MT CO_2e/year).

SF_6 gas emission calculations are provided in Appendix C, Tables C-4 and C-5.

Estrella Substation

As previously discussed, SLOAPCD has established a threshold of 10,000 MT per year for CO_2e for use in establishing whether a project has a significant impact on GHG emissions. CO_2 from diesel fuel combustion is the overwhelming contributor to total GHG emissions from construction. Construction of Estrella Substation will generate GHG emissions over the 7-month construction period. Construction-related emissions will result from off-road construction equipment and machinery, and from vehicular traffic generated by commuting workers and material hauling. Following project completion, all construction emissions will cease. See Appendix C, GHG Calculations, Table C-2, Total Estimated Greenhouse Gas Emissions for Estrella Substation, for a summary of construction-related GHG emissions from the Estrella Substation portion of the project.

Construction of Estrella Substation will result in emissions of 739 MT of CO_2e, which is well below the significance threshold and, therefore, the impact of GHG emissions due to construction will be less than significant.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Construction of the distribution facilities will generate GHG emissions over an approximately four month construction period. Construction-related emissions will result from limited off-road construction equipment and machinery, and from vehicular traffic generated by commuting workers and material hauling. Following project completion, all construction emissions will cease. Construction of the future 70/21 kV transformer and distribution facilities will result in emissions of approximately 47 MT of CO_2e, which is well below the significance threshold. As a result, the impact of GHG emissions due to construction of distribution facilities will be less than significant.

Power Line Route

As previously discussed, SLOAPCD has established a threshold of 10,000 MT per year for CO_2e for use in establishing whether a project has a significant impact on GHG emissions. As with Estrella Substation, CO_2 from diesel fuel combustion is the main contributor to total GHG emissions from construction. Construction of the power line route will generate GHG emissions over the 7-month construction period. Construction-related emissions will result from off-road construction equipment and machinery, helicopter activity, and from vehicular traffic generated by commuting workers and materials hauling. Following project completion, all construction-related emissions will cease. See Appendix C, GHG Calculations, Table C-3, Total Estimated Annual Greenhouse Gas Emissions for the Power Line, for a summary of construction-related GHG emissions from the power line portion of the project.

Construction of the new 70 kV power line segment and reconductoring segment will result in emissions of 676 MT of CO_2e, which is well below the significance threshold of 10,000 MT. As a result, the impact of GHG emissions due to construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

Once Estrella Substation becomes operational, associated emissions will drop significantly since much of the GHG emissions will be associated with construction-related activities. Both the 230 kV and 70 kV substations will be remotely operated and monitored and will not result in significant regular vehicle travel and emissions of GHG. The largest source of operational emissions during operation and maintenance will occur from vehicle travel associated with one maintenance truck, once a month for each of the two substations, for a total of two vehicle trips per month.

During operation of Estrella Substation, SF_6 will also be emitted. SF_6 is a colorless, odorless, non-flammable gas with excellent cooling, insulating, and arc-quenching capabilities for potentially high-temperature applications, such as electrical circuit breakers. The five 230 kV circuit breakers will each contain 130 pounds of SF_6 gas. There will also be five 70 kV circuit breakers containing 30 pounds of SF_6 gas, as well as a spare filler tank containing 100 pounds of SF_6 gas.

The maximum guaranteed manufacturer leakage limit for the breakers is 0.5% per year, which is equivalent to 0.65 pounds of SF_6 per year per 230 kV circuit breaker (6.7 MT CO_2e per year per 230 kV circuit breaker), 0.15 pounds of SF_6 per year per 70 kV circuit breaker (1.6 MT CO_2e per year per 70 kV circuit breaker), and 0.5 pounds of SF_6 per year per spare filler tank (5.2 MT CO_2e per year per spare filler tank). Therefore, operational GHG emissions due to SF_6 leakage associated with the substation could be up to approximately 48 MT of CO_2e per year. See Appendix C, Table C-2, Total Estimated Annual Greenhouse Gas Emissions for Estrella Substation, for a summary of operations-related GHG emissions from the Estrella Substation portion of the project.

The substation will be remotely operated and will not result in regular vehicle travel and emissions of GHG. During operation and maintenance of the project, the project proponents will implement standard Best Management Practices (BMPs)—such as minimizing vehicle trips and keeping vehicles and equipment well maintained—during operations, and will comply with CARB Early Action Items (CARB 2011) as these policies become effective. Substation operation and maintenance impacts will be far below the significance threshold and, thus, less than significant. In addition, the project proponents will incorporate Estrella Substation into their system-wide SF_6 emission reduction program to further avoid and reduce SF_6 emissions as described in APM GHG-1, Minimize SF_6 Emissions. Implementation of this APM will further reduce GHG-related impacts associated with operation and maintenance of Estrella Substation.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. An additional two 70 kV SF_6 insulated circuit breakers will be installed at the 70 kV substation, resulting in a total of seven 70 kV circuit breakers. An additional 0.30 pounds of SF_6 per year from the two additional 70 kV circuit breakers (0.15 pounds each) could be emitted, resulting in an additional approximately 3.2 MT CO_2e per year of potential emissions for the two circuit breakers (1.6 MT CO_2e per year per 70 kV circuit breaker). Operational GHG emissions due to potential SF_6 leakage associated with the substation will increase from approximately 48 MT of CO_2e per year to approximately 51 MT per year. This increased amount will still be well under the threshold of 10,000 MT per year for CO_2e, as established by SLOAPCD. Substation operation and maintenance impacts with future distribution will be far below the significance threshold and, thus, less than significant.

Power Line Route

GHG emissions associated with operation and maintenance of the power line route will be emitted from helicopter exhaust during inspections occurring every 2 years. Emissions due to operation and maintenance of the power line route will be significantly less than GHG emissions associated with construction. As shown in Appendix C, GHG Calculations, Table C-3, Total Estimated Annual Greenhouse Gas Emissions for the Power Line, the power line route is estimated to have negligible GHG emissions during operation and maintenance of the power line route, due to the absence of GHG generating equipment.

During operation and maintenance of the power line route, the project proponents will implement standard BMPs—such as minimizing vehicle trips and keeping vehicles and equipment well maintained—during operations, and will comply with CARB Early Action Items (CARB 2011) as these policies become effective. As a result, impacts will be less than significant.

GHG-b: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases? (No Impact)

Construction and operation of the project will result in emissions that are covered by the CARB Scoping Plan. Although project implementation will result in temporary construction-related GHG emissions, the intent, purpose, and function of the project aligns with the goals of the AB 32 Scoping Plan, which is the GHG reduction plan for California. Electrification of day-to-day operations in land use development projects and industrial processes is a method that potentially can reduce fossil fuel combustion (e.g., gasoline, diesel) due to the use of less carbon-intensive energy sources (depending on the source of electricity production).

By increasing reliability of the project area's power system, existing electricity customers will have access to safe and reliable electricity. This reliable electricity source may then support additional electrification of customer operations, which in turn may result in reduced GHG emissions. In addition, the project will improve the electric transmission infrastructure in the region, which can support existing or future renewable electric generation (e.g., wind, solar, hydro, and thermal). Therefore, the project will be consistent with the goals of the AB 32 Scoping Plan and no impact will occur.

As described in Section 3.7.4.1, according to the SLOAPCD's *CEQA Air Quality Handbook,* GHG emissions from construction projects must be quantified and amortized over the life of the project (30 years). The project will not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions and the minimal short-term construction GHG emissions will not interfere with the long-term goal of AB 32 to reduce GHG emissions to 1990 levels by 2020. While circuit breakers may emit minor amounts of SF_6 due to leakage during project operations, these emissions will be incorporated into the project proponent's system-wide SF_6 emission reduction program per GHG-1 (Minimize Operational SF_6 Emissions). This program will be tracked annually per CARB's *Regulation for Reducing SF_6 Emissions from Gas Insulated Switchgear*. As a result of this program, the project will generate minor and insignificant amounts of CO_2e emissions over the life of the 30-year lifespan of the project. Therefore, the project will not conflict with plans, policies, or regulations intended to reduce GHGs and no impact will occur.

3.7.5 References

California Air Resources Board (CARB). 2007. *California 1990 Greenhouse Gas Emissions Level and 2020 Limit*. November 16, 2007. Online: http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm. Accessed on July 26, 2016.

———. 2008a. *Climate Change Scoping Plan*. December 2008. Online: http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm. Accessed on July 28, 2016.

———. 2008b. *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act* (Preliminary Draft Staff Proposal). Online: http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf. Accessed on July 28, 2016.

———. 2011. *Early Action Items*. Online: http://arb.ca.gov/cc/ccea/ccea.htm. Accessed on July 26, 2016.

California Energy Commission (CEC). 2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. CEC-600-2006-013-SF. December 2006. Online: http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF. Accessed on August 8, 2016.

ENVIRON International Corporation and the California Air Districts. 2016. *California Emissions Estimator Model User's Guide Version 2016.3.1*. Appendix A: Calculation Details for CalEEMod. July 2013. Online: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixa.pdf?sfvrsn=2. Accessed on July 26, 2016.

Intergovernmental Panel on Climate Change (IPCC). 2013. Summary for Policymakers. In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Stocker, T.F., D. Qin, G.K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Online: http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf. Accessed on July 22, 2016.

San Luis Obispo County Air Pollution Control District (SLOAPCD). 2012a. *Greenhouse Gas Thresholds and Supporting Evidence*. March 28, 2012. Online: http://www.slocleanair.org/images/cms/upload/files/Greenhouse%20Gas%20Thresholds%20and%20Supporting%20Evidence%204-2-2012.pdf. Accessed on July 27, 2016.

———. 2012b. *CEQA Air Quality Handbook: A Guide For Assessing The Air Quality Impacts for Projects Subject to CEQA Review*. April 2012. Online: http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf. Accessed on July 15, 2016.

Under2MOU.org. 2015. Under 2 MOU. Online: http://under2mou.org/. Accessed on July 28, 2016.

U.S. Environmental Protection Agency (USEPA). 2009. 40 CFR Chapter I: Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule. December 15, 2009. *Federal Register* 74(239):66496–66546.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 Introduction

This section describes existing conditions and potential impacts related to hazards and hazardous materials associated with construction, operation, and maintenance of the project. The analysis concludes that any impacts related to hazards and hazardous materials will be less than significant; the implementation of Applicant-Proposed Measures (APMs) described in Section 3.8.4.2, Applicant-Proposed Measures, will further reduce less-than-significant impacts. The project's potential effects associated with hazards and hazardous materials were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Conclusions are summarized in Table 3.8-1, CEQA Checklist for Hazards and Hazardous Materials, and discussed in more detail in Section 3.8.4, Applicant-Proposed Measures and Potential Impacts. The Phase I Environmental Site Assessment for Estrella Substation and the Environmental Data Resources, Inc. (EDR) reports for hazardous sites near the project areas are included as Appendices N and O.

Table 3.8-1. CEQA Checklist for Hazards and Hazardous Materials

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS ***Would the project:***				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5	☐	☐	☒	☐

Table 3.8-1. CEQA Checklist for Hazards and Hazardous Materials

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
and, as a result, would it create a significant hazard to the public or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

3.8.2 Regulatory Background

The use of hazardous materials and disposal of hazardous waste are subject to numerous laws and regulations at all levels of government. The following paragraphs contain an overview of regulations related to the use of hazardous materials, disposal of hazardous waste, and other hazards.

3.8.2.1 Regulatory Background

Federal

Resource Conservation and Recovery Act

Under the Resource Conservation and Recovery Act of 1976 (RCRA; United States Code [U.S.C.] Title 42, Section 6901 et seq.), individual states may implement their own hazardous waste programs in lieu of the RCRA as long as the state program is at least as stringent as the federal RCRA requirements (U.S. Environmental Protection Agency [USEPA] 2015a). RCRA (42 U.S.C. 6901 et seq.) regulates hazardous waste from the time that waste is generated until its final disposal through management, storage, transport, and treatment. The federal government approved California's RCRA program, called the Hazardous Waste Control Law (HWCL), in 1992. In California, the RCRA program is administered by the California Environmental Protection Agency's (Cal/EPA) Department of Toxic Substances Control (DTSC), per direction of the USEPA.

Identification and Listing of Hazardous Waste

Hazardous wastes are incorporated into four lists published by USEPA. The lists are organized into three categories:

1. **F-list (non-specific source wastes).** This list identifies wastes from common manufacturing and industrial processes, such as solvents that have been used in cleaning or degreasing operations. Because the processes producing these wastes can occur in different sectors of industry, the F-listed wastes are known as wastes from non-specific sources. Wastes included on the F-list can be found in the regulations at Code of Federal Regulations (CFR) Title 40, Section 261.31.
2. **K-list (source-specific wastes).** This list includes certain wastes from specific industries, such as petroleum refining or pesticide manufacturing. Certain sludges and wastewaters from treatment and production processes in these industries are examples of source-specific wastes. Wastes included on the K-list can be found in the regulations at 40 CFR 261.32.
3. **P-list and U-list (discarded commercial chemical products).** These lists include specific commercial chemical products in an unused form. Some pesticides and some pharmaceutical products become hazardous waste when discarded. Wastes included on the P- and U-lists can be found in the regulations at 40 CFR 261.33.

Characteristic Wastes: Even if the waste stream does not meet any of the four listings explained above, it may still be considered a hazardous waste if it exhibits one of four characteristics defined in 40 CFR, Part 261, Subpart C: ignitability (D001), corrosivity (D002), reactivity (D003), and toxicity (D004-D043).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 42 U.S.C. Chapter 103) and associated Superfund Amendments provide USEPA with the authority to identify hazardous sites, to require site remediation, and to recover the costs of site remediation from polluters (USEPA 2015b). CERCLA also enabled the revision of the National Oil and Hazardous Substances Pollution Contingency Plan, also known as the National Contingency Plan (NCP). The NCP provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants.

Clean Water Act

The Clean Water Act (CWA) gives USEPA the authority to regulate the discharge of pollutants and hazardous materials into the waters of the United States. The CWA does not directly address groundwater contamination. Groundwater protection provisions are included in the RCRA, the Safe Drinking Water Act, and the Superfund Act. As part of the CWA, USEPA oversees and enforces the Oil Pollution Prevention regulation (40 CFR Part 112). The regulations describe the requirements for facilities to prepare, amend, and implement Spill Prevention, Control, and Countermeasure (SPCC) Plans. SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to have a comprehensive spill prevention program that minimizes the potential for discharges from specific sources, such as oil-containing transformers.

The USEPA designates hazardous substances under the Federal Water Pollution Control Act (40 CFR, Chapter I, Subchapter D Parts 116 and 117) and determines quantities of designated hazardous substances that must be reported (40 CFR Part 116) or that may be discharged into waters of the United States (40 CFR Part 117).

U.S. Department of Transportation Hazardous Materials Regulations

The U.S. Department of Transportation (DOT) Hazardous Materials Regulations (49 CFR 100–185) cover all aspects of hazardous materials packaging, handling, and transportation.

Federal Aviation Administration Regulations

The FAA regulates aviation at regional, public, private, and military airports. Navigable airspace regulations at 14 CFR Part 77 establish standards for determining obstructions in navigable airspace. FAA helicopter loading regulations are found in 14 CFR Part 133. The FAA issues the airspace hazard determinations using FAA Form 7460.

State

Hazardous Substance Account Act

The Hazardous Substance Account Act (HSAA; California Health and Safety Code [HSC] Chapter 6.8, Section 25300 et seq.) is California's equivalent to the CERCLA. It addresses hazardous waste sites and apportions liability for them. The HSAA also provides that owners are responsible for the cleanup of such sites and the removal of toxic substances, where possible.

The two state agencies with primary responsibility for enforcing federal and state regulations related to hazardous material transport, and responding to hazardous materials transportation emergencies, are the California Highway Patrol (CHP) and California Department of Transportation (Caltrans), respectively.

Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (California HSC Chapter 6.5, Section 25100 et seq.) authorizes Cal/EPA and DTSC, a department within Cal/EPA, to regulate the generation, transportation, treatment, storage, and disposal of hazardous wastes. DTSC can also delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

Hazardous Waste Fee Health and Safety Code

The Hazardous Waste Fee Health and Safety Code (California HSC Chapter 6.5, Section 25143 et seq.) provides definition and guidance on wood waste and its disposal. Wood waste is defined in part as poles, crossarms, pilings, and fence posts that have been previously treated with a preservative.

Wood waste materials removed from electric, gas, or telephone service is exempt from the requirements for disposal provided certain conditions are met. Conditions include: if the wood waste is not subject to regulation as a hazardous waste under a federal act; it is disposed of in a composite-lined portion of a municipal solid waste landfill that meets any requirements imposed by the state policy adopted pursuant to Section 13140 of the Water Code and regulations adopted pursuant to Sections 13172 and 13173 of the Water Code; and if the solid waste landfill used for disposal is authorized to accept the wood waste under waste discharge requirements issued by the California Regional Water Quality Control Board (RWQCB) pursuant to Division 7 (commencing with Section 13000) of the Water Code.

Occupational Health and Safety

The California Division of Occupational Safety and Health (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state (California Code of Regulations [CCR] Title 8). Cal/OSHA standards are more stringent than the federal Occupational Safety and Health Administration (OSHA) regulations and take precedence.

Hazardous Materials Management

The California Office of Emergency Services is the state office responsible for establishing emergency response and spill notification plans related to hazardous materials accidents. CCR Title 26 is a compilation of the chapters or titles of the CCR that are applicable to hazardous materials management.

Porter-Cologne Water Quality Control Act

As discussed in more detail in Section 3.9, Hydrology and Water Quality, the Porter-Cologne Water Quality Control Act (California Water Code, Division 7) is the provision of the California Water Code that regulates water quality in California and authorizes the State Water Resources Control Board (SWRCB) and nine RWQCBs to implement and enforce the regulations.

RWQCBs regulate discharges under Porter-Cologne primarily through the issuance of waste discharge requirements. Anyone discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge. SWRCB and the applicable RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. Porter-Cologne provides several means of enforcement, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecution. The project area is under the jurisdiction of the Central Coast RWQCB (CCRWQCB).

Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations

The California Air Resources Board (CARB) has established the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations to minimize the generation of asbestos from earth disturbance or construction activities. The Asbestos ATCM applies to any project that will include sites to be disturbed in a geographic ultramafic rock unit area or an area where naturally occurring asbestos (NOA), serpentine, or ultramafic rocks are determined to be present.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (CCR Title 27) was mandated by the State of California in 1993. The Unified Program was created to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for six hazardous materials programs. The program has six elements, including:

- Hazardous Waste Generators and Hazardous Waste On-site Treatment;
- Underground Storage Tanks;
- Aboveground Petroleum Storage Act;
- Hazardous Materials Release Response Plans and Inventories;
- California Accidental Release Prevention; and,
- Uniform Fire Code Hazardous Materials Management Plans and Hazardous Materials Inventory Statements.

At the local level, this is accomplished by identifying a Certified Unified Program Agency (CUPA) that coordinates all of these activities to streamline the process for local businesses. The County of San Luis Obispo (County) Environmental Health Services Division is approved by Cal/EPA as the CUPA for the county.

Rules for Overhead Electric Line Construction

Under Section 35 of General Order (G.O.) 95, CPUC regulates all aspects of design, construction, operation, and maintenance of electrical power lines and fire safety hazards for utilities subject to their jurisdiction.

Fire Prevention Standards for Electric Utilities

The Fire Prevention Standards for Electric Utilities (14 CCR 1250-1258) provide definitions, maps, specifications, and clearance standards for projects under the jurisdiction of Public Resources Code (PRC) Sections 4292 and 4293 in State Fire Responsibility Areas (SRAs).

California Fire Code

The California Fire Code 2010 (24 CCR 9) is based on the International Fire Code from the International Code Council and contains consensus standards related to establishing good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new or existing buildings, structures, and premises.

California Public Resources Code

PRC Sections 4290–4293 identify construction, operation, and maintenance requirements to minimize fire hazards for structures located in SRAs.

- PRC 4290 was adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development of all residential, commercial, and industrial buildings in SRAs. Under PRC 4290, all residential, commercial, and industrial building construction within SRAs must provide for basic emergency access and perimeter wildfire protection measures, as specified in the code. Local standards that exceed those of PRC 4290 supersede PRC 4290.
- PRC Section 4291 addresses requirements for maintaining defensible space around buildings in SRAs.
- PRC Section 4292 addresses power line hazard reduction. It identifies the requirements for firebreaks around "any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole" in wildland areas.
- PRC Section 4293 provides specific clearances for power lines in wildland areas.

California Department of Toxic Substances Control

The California Hazardous Waste Control Act governs hazardous waste management and cleanup in the state (HSC Chapters 6.5–6.98). The act mirrors RCRA and imposes a cradle-to-grave regulatory system for handling hazardous waste in a manner that protects human health and the environment. It requires all businesses to report the quantity and locations of hazardous materials on an annual basis if the business stores: (1) more than 55 gallons of a liquid or 500 pounds of a solid hazardous material, (2) more than 200 cubic feet of a compressed gas, or (3) a radioactive material that is handled in quantities for which an emergency plan is required. Businesses falling within these limits must prepare a Hazardous Material Business Plan, which includes spill prevention, containment, emergency response measures, and a contingency plan. Implementation of the Hazardous Waste Control Act is the responsibility of the DTSC.

Local

Because CPUC has exclusive jurisdiction over the siting, design, and construction of the project, the project is not subject to local discretionary regulations. However, this section provides information on adopted airport land use plans and adopted emergency response plans or evacuation plans for informational purposes and to assist with CEQA review.

County of San Luis Obispo General Plan

The *County of San Luis Obispo General Plan* includes a *Conservation and Open Space Element*, which establishes goals, policies, and implementation measures for the preservation of natural resources, cultural resources, scenic beauty, recreation, and open space (County of San Luis Obispo 2010). In 1995, the County adopted the *Energy Element* as part of the County's General Plan, and it was subsequently merged with the *Conservation and Open Space Element*. The *Conservation and Open Space Element* was updated in 2010 and contains the goals of designing, siting, and operating non-renewable energy facilities to be environmentally appropriate, and protecting the public from potential hazards and significant environmental impacts. The *Safety Element* of the *County of San Luis Obispo General Plan* (County of San Luis Obispo 1999) establishes goals, policies, and implementation measures for the prevention, response, and public education of natural disasters and other hazards within the county.

> ***Goal S-5.*** *Minimize the potential for loss of life and property resulting from geologic and seismic hazards.*
>
> ***Policy S-24. Aircraft Hazards.*** *Reduce the potential for disaster from airport and land use conflicts in conjunction with the Airport Land Use plans.*
>
> ***Policy S-26. Hazardous Materials.*** *Reduce the potential for exposure to humans and the environment by hazardous substances.*
>
> ***Standard S-69. Hazardous Materials Transport.*** *Work with CalTrans to require all transport of hazardous materials to follow CalTrans approved routes.*

County of San Luis Obispo Local Hazard Mitigation Plan

The County revised their Local Hazard Mitigation Plan (LHMP) in 2011, which was developed in accordance with requirements of the Disaster Mitigation Act of 2000 (County of San Luis Obispo 2011). The LHMP for San Luis Obispo County addresses earthquakes and liquefaction, floods, landslides, tsunami and seiche, wildfire, extreme weather, coastal storms and erosion, biological agents, and pest infestation and disease. The plan assesses community vulnerability and mitigation capabilities, and provides mitigation strategies, a mitigation action plan, and an implementation program.

County of San Luis Obispo Hazardous Materials Emergency Response Plan

The County developed its Hazardous Materials Emergency Response Plan in 2001, and later revised the plan in 2013. The purpose of this plan is to establish the County's response organization, command authority, responsibilities, functions and interactions required to mitigate hazardous material incidents so life and property, and environment may be saved from the effects of such an incident. The objectives of this plan include to: provide a basic overview of the threats from hazardous material emergencies in San Luis Obispo County; provide an overall concept which enhances the protection of the public in the event of an emergency; provide an overview of emergency public alert and notification systems and messages that can be provided to the public in the affected area; delineate the respective authorities and responsibilities of federal, state, and local agencies; and outline the concept of operations, emergency organization, management, and supporting systems required to implement this plan.

Airport Land Use Plan for the Paso Robles Municipal Airport

The Airport Land Use Plan (ALUP) for the Paso Robles Municipal Airport was adopted by the San Luis Obispo Airport Land Use Commission (ALUC) in 1977. It is a local planning document and does not apply to this project. The ALUP sets forth policies to promote compatibility between the Paso Robles Municipal Airport and future land uses in the surrounding area by establishing a set of compatibility criteria that is applicable to new development within County jurisdiction. The plan provides the basis by which the ALUC can carry out its land use development review responsibilities in accordance with Section 21670 et seq. of the California Public Utilities Code.

While the ALUP does not apply to this project, the ALUC has adopted Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, using imaginary surfaces to determine height restrictions for natural and artificial objects. These federal regulations govern project design, and the project proponents will comply with all FAA requirements.

Although the ALUP Land Use Compatibility Matrix contains a blanket prohibition of electric power plants and overhead transmission lines in all defined safety zones (ALUC 1977; Table 6 Paso Robles Municipal Airport Land Use Compatibility Matrix), that prohibition does not apply to project utility lines. Applicable federal regulations allow utility line facilities within the height limits proposed for this project. San Luis Obispo County airport land use compatibility is discussed further in Section 3.10, Land Use and Planning.

City of El Paso De Robles General Plan

The *Safety Element* of the *City of El Paso de Robles General Plan* (City of El Paso de Robles 2003) addresses the community risks associated with fires, flood, geologic hazards and other phenomena with goals, policies, and action items that include the following:

> ***Goal S-1: Minimize exposure to natural and manmade hazards.***
>
> ***Policy S-1D. Structural Safety.*** *Rely on the City's planning and building permit review process to ensure that existing and proposed structures are adequately designed, and to reduce susceptibility to damage from fire, flooding, and geologic hazards.*
>
> ***Policy S-1E. Hazardous Materials.*** *The City shall comply with Government code requirements regarding the use, storage, and transportation of hazardous materials.*

City of El Paso de Robles Local Hazard Mitigation Plan

The City of El Paso de Robles (City) developed a LHMP to assess risks posed by natural and human-caused hazards and to develop a mitigation strategy for reducing the City's risks (City of Paso Robles 2016). The City prepared the LHMP in accordance with the requirements of the Disaster Mitigation Act of 2000. The LHMP identifies and profiles hazards, the people and facilities at risk, and mitigation actions to reduce or eliminate hazard risk. The plan addresses dam failure inundation, drought, earthquakes, expansive soil, extreme heat, flood, extreme cold, land subsidence, landslides, and hazardous materials.

3.8.2.2 Methodology

Potential impacts on the environment related to hazards and hazardous materials were evaluated based on the type and location of anticipated project-related construction and operational activities. The evaluation was based on review of publicly available information about existing land uses, wildfire hazard zones, and known soil and/or groundwater contamination sites within and near the project area. Specifically, the impacts analysis used information from the DTSC's EnviroStor Database (DTSC 2016), SWRCB's GeoTracker database (SWRCB 2016), the California Department of Forestry and Fire Protection (CAL FIRE), the FAA Notice Criteria Tool, USEPA, and various local planning documents. Existing airports and air strips in the project area were identified to assess the potential for airspace hazard impacts. Existing and proposed schools within 0.25 mile of the project components were identified.

The site-specific *Phase I Environmental Site Assessment for the Proposed Estrella Substation Project in San Luis Obispo County, California* (Appendix N) was prepared to meet due diligence requirements under the CERCLA. The Phase I Environmental Site Assessment presents findings from review of historical aerial photographs and topographic maps, parcel information, interviews, questionnaires, review of an EDR environmental database search, and other sources.

An EDR report was also obtained for the power line route and reviewed to screen for hazardous waste sites in the project area (Appendix O). The search drew from more than 60 federal and state environmental data tracking sites that provide site records of hazardous material handling or releases to the environment. The EDR report includes: 1) information on sites within a 1-mile buffer;[1] and 2) maps showing the locations of these sites. The database search process reviews multiple lists for historically contaminated properties and businesses that use, generate, or dispose of hazardous materials or petroleum products in their operation. In addition, the EDR search reviews lists of active contaminated sites that are currently undergoing monitoring and remediation.

As specified by the CEQA significance criterion (see Table 3.8-1, CEQA Checklist for Hazards and Hazardous Materials), the EDR report was used to identify sites along the routes that are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 ("Cortese List"). Because the Cortese List is no longer specifically updated by the state,

[1] Analysis under CEQA requires assessment of whether a project would be located on a hazardous materials site, as defined under Gov. Code section 65962.5. A 0.25-mile buffer is a typical distance used to identify the presence of contaminants in off-site groundwater that may have the potential to migrate to a given site. Off-site properties with groundwater contamination further than 0.25 miles away are assumed to not have the potential to impact a given site. Off-site properties with only soil contamination are generally dismissed from further consideration because soil contamination remains in place.

those requesting a copy of the Cortese List are now referred directly to the appropriate information resources contained on the Internet web sites of the boards or departments that are referenced in the statute. Therefore, the EDR report's listing of Cortese List sites was supplemented by reviewing the sites listed on the Envirostor database (DTSC 2016) and sites listed on the GeoTracker database (SWRCB 2016).

The EDR report was also used to screen for nearby hazardous waste sites that could potentially affect the project based on the significance criteria summarized in Table 3.8-1.

3.8.3 Environmental Setting

The project is located in the northern portion of San Luis Obispo County, extending through portions of Paso Robles and unincorporated areas of San Luis Obispo County north and east of Paso Robles. The project extends approximately 5 miles east of US 101 and approximately 1 mile to the north and 1.5 miles to the south of SR-46.

3.8.3.1 Airports

The Paso Robles Municipal Airport is a two-runway airport located at 4912 Wing Way, Paso Robles. The nearest runway is located approximately 2.2 miles northwest of Estrella Substation and about 1.25 miles northeast of the northernmost portion of the new 70 kV power line segment. Portions of the new 70 kV power line segment are within the ALUP area (refer to Figure 3.10-1, Planning Areas and Public Facilities, in Section 3.10, Land Use and Planning). The ALUC has adopted Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, using imaginary surfaces to determine height restrictions for natural and artificial objects. Penetration of these imaginary surfaces by permanent structures will endanger pilots and passengers of aircraft operating at the airport and will pose a hazard to persons occupying those structures. Although the ALUP Land Use Compatibility Matrix contains a blanket prohibition of electric power plants and overhead transmission lines in all zones (ALUC 1977; Table 6 Paso Robles Municipal Airport Land Use Compatibility Matrix), the federal regulations allow utility line facilities within prescribed height limits and the project will comply with federal regulations.

Moreover, although the ALUP does not have jurisdiction over the project, the project proponents met with the Paso Robles Airport Manager and incorporated recommendations into the project description to further ensure compatibility with air travel at the airport. Consistency of the project with the ALUP for land use purposes is discussed in Section 3.10, Land Use and Planning.

3.8.3.2 Schools

As discussed in Section 3.14, Public Services, no schools are located within 0.25 mile of Estrella Substation or the power line route. The nearest school, Kermit King Elementary School, is located at 700 Schoolhouse Circle, Paso Robles, approximately 0.3 mile east of the reconductoring segment and 0.3 mile north of SR-46. A map of nearby schools is provided in Figure 3.10-1, Planning Areas and Public Facilities.

3.8.3.3 Naturally Occurring Asbestos

Serpentine rock is known to occur in portions of San Luis Obispo County. The San Luis Obispo County Air Pollution Control District (SLOAPCD) has identified serpentine rock as a source of NOA. Asbestos is a known carcinogen and inhalation of asbestos may result in lung cancer or mesothelioma. Exposure and disturbance of rock and soil that contains asbestos can result in the release of fibers to the air and consequent exposure to the public. CARB has identified asbestos as a toxic air contaminant. Serpentine soils in the county are generally limited to the coastal and inland mountain ranges and are not typically found in the inland valleys. Further, there are no serpentine soils mapped in Paso Robles (County of San Luis Obispo 2016b).

Under CARB's ATCM for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities at a development site, a geologic analysis is required to determine if serpentine rock is present. If NOA is found at a development site, preparation of an Asbestos Health and Safety Program and an Asbestos Dust Mitigation Plan are required. These plans require approval by SLOAPCD before construction begins.

3.8.3.4 Agricultural Pesticide Use

Paso Robles and surrounding lands in San Luis Obispo County contain agricultural operations. Intensive agricultural uses such as row crops, vineyards, and orchards are often sprayed with various pesticides, which can contaminate the soils. Bare or denuded vegetation can suggest evidence for soil contamination. Potential contaminants can include DDT (pesticide), lead, and arsenic. Spraying and pesticide use is assumed to be active on a regular basis in all vineyards and crop fields adjacent to the project according to individual crop needs during the growing season.

3.8.3.5 Existing Hazardous Materials/Sites

The project area is located in Paso Robles, characterized by suburban residential and commercial development, along with rural agricultural lands and other undeveloped areas in San Luis Obispo County. Existing hazardous sites in urban and suburban environments often include historic or current light industrial uses, such as auto repair shops, gas stations, and dry cleaning facilities. Rural lands are generally associated with other hazards associated with activities such as agricultural processing and mining sites.

The EDR report generated information for sites located within 1 mile of the proposed project. However, the potential for hazardous materials to be encountered is generally limited to a 0.25-mile radius, and is also dependent on topography, hydrology, and geology. Sites located farther than 0.25 mile from the project, substantially downgrade from the project, or across a hydrologic barrier such as a creek or river from the project, will be unlikely to leach hazardous materials or contaminate soils that will be encountered, and are eliminated from consideration.

Additionally, most sites listed in the EDR report are generated from databases that track past or current hazardous materials use, hazardous waste generation, or the presence of petroleum hydrocarbon tanks, including both current and former tanks, aboveground and underground tanks, and tanks with and without reported leaks into the environment. The EDR report also captures historic uses such as auto and dry cleaning use. In addition, many databases used in the

EDR report capture permit history, such as active discharge permits. These types of records do not necessarily indicate presence of soil or groundwater contamination.

The EDR report included records from the California Office of Emergency Services (OES) California Hazardous Material Incident Report System (CHMIRS), which contains information on reported hazardous materials incidents (i.e., accidental releases or spills). No CHMIRS incidents were recorded on the project site. CHMIRS incidents recorded within the geographic area of the project are generally small quantity, but reportable spills, that were previously reviewed, documented, and resolved, such as oil leaks and sewage backups in paved areas and storm drain systems. The CHMIRS records located in the geographic area of the project are generally not indicative of a current potential for contamination of soil or groundwater.

Spills and leaks are recorded in the SWRCB Leaking Underground Storage Tank (LUST) list and the Spills, Leaks, Investigations, and Cleanups (SLIC) list, which are each included in the EDR report. A search of the SWRCB's GeoTracker Database or the Hazardous Waste and Substances Site List (i.e., the EnviroStor database) was also completed for the project area (SWRCB 2016; DTSC 2016). Sites considered in the geographic area and identified as having recognized environmental conditions (ASTM International [ASTM] 2013) such as those listed under LUST, SLIC, GeoTracker, and EnviroStor are listed in Table 3.8-2, Existing Contamination Sites (SWRCB 2016; DTSC 2016).

Table 3.8-2. Existing Contamination Sites

Site	Designation	Address	Status
Kermit King School Site	DTSC School Investigation (Lead)	700 Schoolhouse Circle, Paso Robles	No Action Required
Western Farm Services – Paso Robles	CCRWQCB Cleanup Program Site (Fertilizer); LUST cleanup site; SLIC site	2502 Oakwood Street, Paso Robles	Completed – Case Closed
Arco Facility No. 5807	LUST Cleanup Site	195 Niblick Road, Paso Robles	Completed – Case Closed
Paso Robles Public Schools	LUST Cleanup Site	2910 Union Road, Paso Robles	Completed – Case Closed
Golden Hill Country Store	LUST Cleanup Site	2400 Golden Hill Road, Paso Robles	Completed – Case Closed

Source: SWRCB 2016; DTSC 2016.

No large-quantity hazardous waste generators or Superfund sites are located within 0.25 mile of the project.

In addition to these known conditions, a small portion of the reconductoring segment is located within 100 feet of an existing underground gas transmission line located in a road right-of-way. A portion of the new 70 kV power line segment as it approaches the tie-in to the existing 70 kV line is also located within 100 feet of an existing underground gas transmission line located on private property. Although past leaks or pipe failures have not been identified, the lines could present a hazard if the location of underground gas lines are left unmarked during construction. However, the project proponents will contact Underground Service Alert (USA) North 811 prior to any ground disturbance. Typically, if an existing pipeline is located too close to a pole location for operating standard construction equipment, the hole will then be hand-dug to ensure proper clearance.

3.8.3.6 Wildland Fire Hazards

The term "wildfire" refers to fires that usually result from the ignition of dry grass, brush, or timber. CAL FIRE defines wildlands as "lands covered wholly or in part by timber, brush, undergrowth or grass, whether of commercial value or not, which protect the soil from erosion, retard runoff of water or accelerated percolation, and lands used principally for range or forage purposes" (PRC Sections 4125–4137). Wildfires commonly occur in areas that are characterized by steep, heavily vegetated hillsides, which makes suppression of the fire difficult. Wildfires play an important role in the ecology of many natural habitats; however, as urban development moves into areas susceptible to wildfire hazards, risks to human safety and property increase.

San Luis Obispo County has a Mediterranean climate, which includes warm to hot, dry summers and mild to cool, wet winters. Inland temperatures are variable with averages ranging from 35 to 93°F. Average annual rainfall in the vicinity of the project is 15.2 inches with approximately 90% of the rain falling between October and April. Average monthly rainfall in the summer months is significantly lower than the winter months, averaging only about 0.2 inches per month between May and September. The risk of wildfires is highest in late summer and early fall. The above temperature and precipitation data is based on Monthly Climate Normals data published by the National Oceanic and Atmospheric Administration (NOAA) from the Paso Robles, California climate station (COOP:046730), located approximately 0.3 mile west of the project for the period between 1981 and 2000 (NOAA 2016).

Estrella Substation and the power line route are within a Local Fire Protection Responsibility Area (LRA), generally bounded by the Paso Robles city boundary, and in unincorporated San Luis Obispo County in an SRA. Based on mapping by CAL FIRE and the County, no portion of the substation or power line route are located within a moderate, high, or very high fire hazard severity zone (CAL FIRE 2009; County of San Luis Obispo 2016a). The nearest SRA fire severity zone in San Luis Obispo County is a high severity zone bounded to the north by Union Road. Estrella Substation and a portion of the new 70 kV power line segment are sited north of Union Road, effectively adjacent to the SRA high fire severity zone (CAL FIRE 2007).

As described in Section 3.14, Public Services, the nearest fire station is the Meridian Fire Station (Station 52), located at 4050 Branch Road, Paso Robles, on the north side of SR-46 approximately 2 miles northeast of the Estrella Substation site. At the Paso Robles Municipal Airport, CAL FIRE also operates the Paso Robles Air Base, which dispatches aircraft for fire emergency response such as transporting fire retardant or water, firefighters, equipment, and injured personnel.

3.8.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts related to hazards and hazardous materials derived from Appendix G of the CEQA Guidelines, provide APMs, and assess potential project-related construction and operational impacts related to hazards and hazardous materials.

3.8.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts related to hazards and hazardous materials were evaluated for each of the criteria listed in Table 3.8-1, as discussed in Section 3.8.4.3, Potential Impacts.

3.8.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs:

Table 3.8-3. Applicant Proposed Measures for Hazards and Hazardous Materials

APM No.	Description
	HAZARDS AND HAZARDOUS MATERIALS
APM HAZ-1	**<u>Hazardous Substance Control and Emergency Response</u>.** The project proponents will implement hazardous substance control and emergency response procedures as needed. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If it is necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available on site, as applicable. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and, if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations. All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following: • Proper disposal of potentially contaminated soils. • Establishing site-specific buffers for construction vehicles and equipment

Table 3.8-3. Applicant Proposed Measures for Hazards and Hazardous Materials

APM No.	Description
	located near sensitive resources. • Emergency response and reporting procedures to address hazardous material spills. • Stopping work at that location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Unit.

3.8.4.3 Potential Impacts

Project impacts related to hazards and hazardous materials were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, construction and operation of approximately 7 miles of a new 70 kV power line segment, and reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to hazards and hazardous materials resources are anticipated at this time as a result of this future project.

Hazards-a: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? *(Less than Significant)*

Project construction will require the routine use of construction equipment that will use or contains hazardous materials, including, but not limited to, the materials listed in Table 3.8-4, Hazardous Materials Typically Used for Construction. Equipment containing or transporting these materials will regularly travel throughout the project area and region during construction periods. Such materials have the potential to result in accidental releases that may affect the public or environment (e.g., contamination of soils, surface water and/or groundwater quality impairment, and floral/faunal toxicity effects).

Table 3.8-4. Hazardous Materials Typically Used for Construction

Hazardous Material	Hazardous Material
ABC fire extinguisher	Gasoline treatment
Acetylene gas	Hot stick cleaner (cloth treated with polydimethylsiloxane)

Table 3.8-4. Hazardous Materials Typically Used for Construction

Hazardous Material	Hazardous Material
Air tool oil	Hydraulic fluid
Ammonium hydroxide	Insect killer
Antifreeze (ethylene glycol)	Insulating oil (inhibited, non-polychlorinated biphenyl [PCB])
Asphalt	Lubricating grease
Automatic transmission fluid	Mastic coating
Battery acid (in vehicles and substation control shelter)	Methyl alcohol
Bottled oxygen	Motor oil
Brake fluid	Paint thinner
Canned spray paint	Propane
Chain lubricant (contains methylene chloride)	Puncture seal tire inflator
Connector grease (penotox)	Starter fluid
Contact cleaner	Sulfur hexafluoride (within the circuit breakers in the substation)
Diesel de-icer	Two-cycle oil (contains distillates and hydro-treated heavy paraffin)
Diesel fuel	Wasp and hornet spray (1,1,1-trichloroethene)
Diesel fuel additive	WD-40
Eyeglass cleaner (contains methylene chloride)	ZEP (safety solvent)
Gasoline	

Construction

Estrella Substation

Estrella Substation is located within a rural agricultural area where on-site spills or releases have limited potential for direct contact and impact to the general public. However, off-site transport of released materials in contaminated soils, surface waters, and/or groundwater has the potential to result in impacts. On-site releases also have the potential to impact workers and the environment through direct contact. Additionally, the improper disposal of hazardous wastes on- or off-site may impact the public, workers, and/or the environment. The potential for off-site material transport in surface and groundwater resources is discussed in Section 4.8, Hydrology and Water Quality.

The potential for the construction of Estrella Substation to result in a significant hazard to the public or environment through the transport, use, or disposal of hazardous materials will be less than significant. The proponents will implement hazardous substance control and emergency response procedures (as described in APM HAZ-1, Hazardous Substance Control and Emergency Response), along with APM HYDRO-1 (Avoidance of Sensitive Aquatic Features) to further ensure that hazardous materials are handled appropriately. As a result, the already less-than-significant impacts will be further reduced.

Power Line Route

Project construction activities generally will not pose a hazardous materials risk; however, construction equipment will require refueling and periodic maintenance. Routine transport, use, and disposal of hazardous materials—such as fuels, lubricating oil, and hydraulic fluid as listed in Table 3.8-4, Hazardous Materials Typically Used for Construction—during construction potentially could result in releases of these materials. Because these activities will be conducted in accordance with standard construction best management practices, and required permitting practices such as a project's required Stormwater Pollution Prevention Plan (SWPPP) (see Section 2.10, Anticipated Permits and Approvals), impacts will be less than significant. Implementation of APM GEN-1 (WEAP Training Program), APM HAZ-1 (Hazardous Substance Control and Emergency Response), and APM HYDRO-1 (Avoidance of Sensitive Aquatic Features) will further reduce the already less-than-significant risk of minor exposures of the environment, the public, or site workers to potentially hazardous materials during project construction.

Wood poles removed from the project area during construction will be managed under the utility exemption of the California HSC (Hazardous Waste Fee Health and Safety Code). Poles will be transported off site and will be collected in project-specific containers either at a PG&E service center that is designated as a PG&E consolidation site or the project's primary staging area. As containers are filled, poles will be transported to an appropriate licensed Class I or Class II landfill or the composite-lined portion of a solid waste landfill. The transport and disposal of the poles will not pose a significant hazard to the environment or the public.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will implement standard procedures in order to minimize the potential for the release or improper disposal of hazardous materials during project operation. The maximum amount of mineral oil required for the transformers at the 230 kV substation will be approximately 15,290 gallons per transformer. The mineral oil will be utility-grade, low-volatility mineral oil. Based on the anticipated volume of dielectric/mineral oil in excess of 1,320 gallons to be used at the 230 kV substation, a Spill Prevention Control, and Countermeasure (SPCC) Plan will be required, in accordance with 40 CFR Parts 112.1–112.7, and will address the project spill prevention and containment design measures and practices. The 230 kV substation will be constructed with secondary containment design in accordance with SPCC requirements for oil containment in the event of the spill.

Maintenance activities will occur monthly at the substation and may include use of new pollutant sources including but not limited to oils, paints, and solvents used for routine maintenance. All materials used during operation and maintenance will be applied, stored, and disposed of consistent with manufacturer recommendations and in accordance with applicable regulations. This impact will be less than significant.

Power Line Route

Other than substances associated with motor vehicles that will be used for annual line inspection, no hazardous materials are associated with maintenance and operation of the project. This impact will be less than significant.

Hazards-b: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? *(Less than Significant)*

Construction

Estrella Substation

As discussed above, project construction will require the use of motorized heavy equipment and hazardous materials. During construction activities, there is an increased potential for an accidental release of fluids from a vehicle or motorized piece of equipment. The project proponents' existing construction policies address the potential release of hazardous materials in upset or accident conditions, and all work will be conducted in accordance with appropriate regulations. The project will not create a significant hazard to the public or environment through accidental releases of hazardous materials given the implementation of APMs, and any impacts during project construction will be less than significant. Implementation of APMs GEN-1 (WEAP Training Program) and HAZ-1 (Hazardous Substance Control and Emergency Response) will further reduce less-than-significant impacts.

Power Line Route

Construction of the power line route will require the use of motorized heavy equipment and hazardous materials, as described above. Although the potential for accidental spills exists during all phases of construction, all work will be conducted in accordance with appropriate regulations, and the project proponents' existing safety programs and procedures.

Two small portions of the power line route are located near two existing natural gas pipelines. One is located in the South River Road right-of-way by the intersection with Navajo Avenue. The other is located on private property by the tie-in to the existing 70 kV power line and North River Road. New and existing power lines will be located on private property. The project proponents will call USA North 811 prior to any earth disturbance to have the pipeline located. Pole excavations near pipelines will be hand dug to expose the pipeline and ensure proper clearance. The project will not create a significant hazard to the public or environment through accidental releases of hazardous materials, and impacts during project construction will be less than significant. With implementation of APMs HAZ-1 (Hazardous Substance Control and Emergency Response), this less-than-significant impact will be further reduced.

Operation and Maintenance

Estrella Substation

The project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Other than substances associated with motor vehicles that will be used for annual line inspection and the sulfur hexafluoride (SF_6) used to insulate the new breakers, no hazardous materials are associated with maintenance and operation of the project. A SPCC Plan will be required, in accordance with 40 CFR 112.1–112.7, and will address the project spill prevention and containment design measures and practices. The 230 kV substation will be constructed with secondary containment design in accordance with SPCC requirements for mineral oil containment in the event of an upset or accident condition (e.g., earthquake or operator error). As a result, impacts associated with creating a hazard to the public from operation of the substation will be less than significant.

Power Line Route

Operation and maintenance activities along the power line route will involve routine inspection activities and equipment checks to power line components similar to existing operation and maintenance activities for existing poles along the route. The potential for the project to create a hazard to public health or the environment through accidents involving the release of hazardous materials will not change during operation and maintenance. This impact will be less than significant.

Impact Hazards-c: Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school? *(No Impact)*

There are no schools located within 0.25 mile of Estrella Substation or the power line route. No impact will occur.

Hazards-d: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? *(Less than Significant)*

Construction

Estrella Substation

The substation site is located in an agricultural area where the historical use of chemical fertilizers and pesticides may have contaminated site soils. The Phase I Environmental Site Assessment (Phase I ESA) and other available information indicate that Estrella Substation is not located on any sites listed pursuant to Government Code Section 65962.5. Land owner interviews conducted as part of the Phase I ESA, determined there was no known historical potential contamination, groundwater contamination, nor any history of leaks, spills, or cleanups. Further, the Phase I ESA included record reviews from the California State Water Resources Control Board's (SWRCB) GeoTracker website, which contains environmental data for regulated facilities in California including cleanup sites and hazardous waste facilities; the

California Department of Toxic Substances Control's (DTSC) EnviroStor website, which includes data for leaking underground storage tank and other cleanup sites, land disposal sites, and hazardous waste permitted facilities; and the California Department of Conservation's (DOC) Division of Oil, Gas & Geothermal Resources Interactive Well Finder, which identifies wells and facilities related to oil and gas. Neither the substation property or nearby properties (within 0.25 mile of the project site) were identified in any of the database searches. As a result, no impacts related to hazardous materials sites will occur.

Power Line Route

The EDR report and other available information indicate that the power line route is not located on sites listed pursuant to Government Code Section 65962.5. No Superfund or state response sites are known to occur within 0.25 mile of the project area. However, records from the EDR report, DTSC EnviroStor, and SWRCB GeoTracker show a number of recorded sites located within 0.25 mile of the power line route. As shown in Table 3.8-2, all cases having identified further remediation actions have been completed and will not be expected to present a future hazard. This impact will be less than significant. Nonetheless, given the historic and recent record of hazardous materials uses within 0.25 mile of the project, it is assumed that there remains a possibility of encountering contaminated soils or groundwater due to unrecorded releases or accidental releases in the future. With implementation of APM HAZ-1 (Hazardous Substance Control and Emergency Response), less-than-significant impacts associated with the potential to create a hazard to the public or the environment from hazardous materials sites from project activities will be further reduced.

Operation and Maintenance

The operations and maintenance associated with Estella Substation and the power line route generally will not include disturbance of subsurface materials. No impact will occur.

Hazards-e: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (Less than Significant)

Construction

Estrella Substation

The Paso Robles Municipal Airport is located within 2 miles of Estrella Substation, but Estrella Substation is not located within the Paso Robles Municipal Airport ALUP area. The substation will be comprised of a variety of components, with the tallest being dead-end steel towers, at approximately 65 feet tall. The new structures in the substation will not be taller than the existing structures holding the existing 230 kV and 500 kV utility lines that are closer to the airport than the substation.

In accordance with the criteria in FAA regulations and 14 CFR 77.9, the project proponents filed a Notice of Proposed Construction and Alteration Application for the project. The FAA's determination for the substation is pending; however, there are existing taller 500 kV towers adjacent to the substation site. FAA marking and/or lighting is not anticipated to be required. Therefore, safety hazards will be less than significant.

Power Line Route

Helicopters may be used in areas of steep slopes or sensitive environmental conditions to avoid the use of ground vehicle travel and disturbance. Helicopter flight paths generally will be limited to the existing power line right-of-way and project-specific landing zones. Helicopter use will be in accordance with all applicable federal, state, and local aviation rules and regulations, and will not create any new hazards.

The Paso Robles Municipal Airport is located within 2 miles of the new 70 kV power line segment. The reconductoring segment is not within 2 miles of any public airport or public use airport.

In accordance with the criteria in FAA regulations and 14 CFR 77.9, the project proponents filed a Notice of Proposed Construction and Alteration Application for the project. The FAA determined that the new power line segment does not exceed FAA obstruction standards and no marking and/or lighting is required. The reconductoring segment is not anticipated to exceed obstruction standards or require marking and/or lighting. Therefore, safety hazard impacts will be less than significant.

Operation and Maintenance

Operation and maintenance activities will not involve the construction of new structures. Therefore, safety hazard impacts from operation and maintenance of the project will be less than significant.

Hazards-f: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? *(No Impact)*

The project is not known to be located within 2 miles of a private airstrip; therefore, no impact will occur.

Hazards-g: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? *(Less than Significant)*

Construction

Estrella Substation

As described in Section 3.16, Transportation and Traffic, short-duration delays could result from construction traffic turning into or leaving the substation work site from Union Road. Construction of Estrella Substation is unlikely to require temporary road or lane closures, and the slight, temporary increase in traffic will not result in conflicts with applicable plans, policies, or ordinances. If a brief road or lane closure were necessary, any necessary encroachment permits will be obtained and temporary or partial lane closures will be in accordance with encroachment permit requirements. Traffic controls identified in the Traffic Control Plan as required by the encroachment permits (refer to Section 2.10, Anticipated Permits and Approvals) will be implemented to direct local traffic safely around the work areas. Construction will therefore not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan; construction of Estrella Substation will result in less-than-significant impacts.

Power Line Route

Construction and installation of the new 70 kV power line segment is generally located in the northern portion of the city and rural areas of the county, which has a smaller population and limited traffic on the affected roads as compared to the reconductoring segment, which is located adjacent to suburban residential and commercial development. Partial or complete road closures may occur during power line conductor transferring, stringing, and pulling activities. Traffic flow may also be temporarily disrupted when it is necessary to conduct work from road shoulders where poles are located adjacent to roadways. Closing lanes will temporarily reduce speeds and cause temporary congestion in the closure areas.

As described in Section 3.16, Transportation and Traffic, the project proponents will follow the recommendations published in the California Joint Utility Traffic Control Manual (California Inter-Utility Coordinating Committee 2010) regarding basic standards for the safe movement of traffic on highways and streets. Recommendations include developing a Traffic Control Plan and coordination with local emergency personnel who organize the traffic response in case of an emergency. Work necessitating road closure such as crossing structure installation will generally be conducted during low-volume traffic times to the extent practicable, with the potential for weekend work on occasion, as necessary. When lanes are closed, traffic will be diverted to other lanes, temporarily, with the use of cones and/or flaggers. During this time, work along the roadway will be staggered according to pole locations, and limited segments of the road will be closed for a time, when necessary.

Any necessary encroachment permits will be obtained and temporary or partial lane closures will be in accordance with encroachment permit requirements. Traffic controls identified in the Traffic Control Plan as required by the encroachment permits (refer to Section 2.10, Anticipated Permits and Approvals) will be implemented to direct local traffic safely around the work areas. Construction of the power line will not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan; therefore, the construction of the power line route will result in less-than-significant impacts.

Operation and Maintenance

Estrella Substation

Estrella Substation will not involve changes to existing road circulation patterns and will not interfere with emergency vehicles or evacuation procedures. Estrella Substation will be remotely operated, with routine maintenance expected to occur on a regular basis. If road closures are necessary, they will occur in accordance with regulations and will not impede emergency response. The project will not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan; therefore, no impact will occur.

Power Line Route

Operation of the power line along the power line route will not impede traffic on any existing roads and will not interfere with emergency vehicles or evacuation procedures. Maintenance of the power lines will largely be limited to annual inspections and bi-annual detailed inspections. Operations and maintenance that occur on the existing 70 kV power line will remain the same as existing conditions. Inspections of the power line segments will be performed annually by PG&E routine patrols, either from the ground or by helicopter. A detailed inspection of the power lines is typically performed by staff every 2 years (wood structures), with an air patrol inspection performed in between, as outlined in PG&E's 2016 Electric Transmission Preventative Maintenance Manual. For lines constructed on steel structures, detailed inspections will occur every 5 years. If road closures are necessary for repairs, they will occur in accordance with the recommendations published in the California Joint Utility Traffic Control Manual (California Inter-Utility Coordinating Committee 2010) regarding basic standards for the safe movement of traffic on highways and streets. The project will not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan; therefore, no impact will occur.

Hazards-h: Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? *(Less than Significant)*

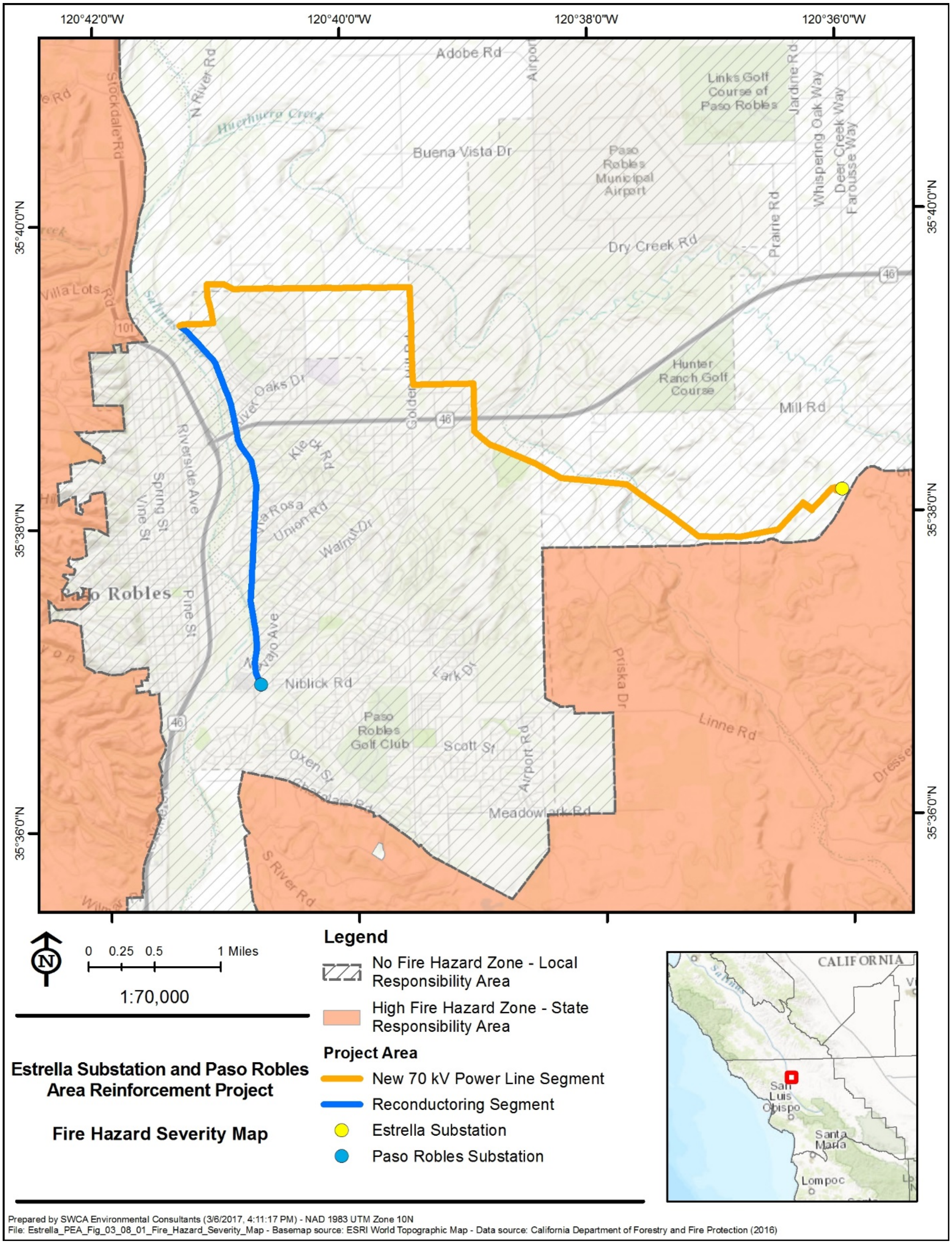
Construction

Estrella Substation

Estrella Substation is generally surrounded by intensive agricultural land largely devoid of brush or dry grass that could ignite and cause a wildfire; however, some parcels within 0.25 mile of the site are either ruderal grasslands or rangelands that, if left unmaintained under critical fire conditions, could present a fire hazard. The substation is located adjacent to a CAL FIRE high fire hazard severity zone, as shown in Figure 3.8-1, Fire Hazard Severity Map.

Heat or sparks from vehicles or equipment have the potential to ignite dry vegetation and cause fires. Other potential fire hazards include worker behavior such as smoking and disposing of cigarettes, or parking vehicles on dry vegetation. Sparks generated from project work activities such as welding have the capacity to travel long distances in windy conditions and could start a fire off-site. However, project activities are generally confined to areas that will have been cleared of vegetation, including access roads and work areas, and construction vehicles and equipment will primarily use existing roads to the extent possible for access to work areas. In addition, active work sites will be watered multiple times daily to control dust. The project proponents will coordinate with CAL FIRE to maintain fire clearances and defensible space at the substation. As a result, the potential for fire from construction of the project will be less than significant. In addition, the project proponents will require construction personnel to adhere to fire prevention practices, such as only smoking in designated areas, good housekeeping practices, and keeping appropriate fire-fighting equipment on site, as described in APM GEN-1 (WEAP Training Program). Implementation of APM GEN-1 will further reduce already less-than-significant impacts.

Figure 3.8-1. Fire Hazard Severity Map



Power Line Route

The power line route is not located within a CAL FIRE fire hazard severity zone, although the east portion of the new 70 kV power line segment, where it enters Estrella Substation, is near a high fire hazard severity zone south of Union Road as shown on Figure 3.8-1, Fire Hazard Severity Map.

Heat or sparks from vehicles or equipment have the potential to ignite dry vegetation and cause fires. Other potential fire hazards include worker behavior such as smoking and disposing of cigarettes, or parking vehicles on dry vegetation. Sparks generated from project work activities such as welding have the capacity to travel long distances in windy conditions and could start a fire off-site.

The power line route traverses vineyards, blue oak woodlands, nonnative grasslands, residences, and commercial developments. The new 70 kV power line segment is largely located in rural lands, whereas the reconductoring segment is largely located in developed residential or commercial neighborhoods of Paso Robles.

Project activities will be generally confined to areas that have been cleared of vegetation, including access roads and work areas. Vehicles and equipment will primarily use existing roads to access work areas, all of which will be cleared of brush to reduce fire potential. New access roads or access roads needing improvement will be cleared of vegetation when constructed. The project proponents will maintain adequate vegetation clearance from power line components as required by CPUC G.O. 95, and will require construction personnel to adhere to fire prevention practices, such as only smoking in designated areas and keeping appropriate fire-fighting equipment on site. Existing wood distribution poles will be removed and replaced. As a result, the potential for fire from construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

Operation and maintenance activities at Estrella Substation will include regular vegetation clearing as needed to provide defensible space between the substation and adjacent lands to minimize the potential for fire. Vehicles will use existing roads to access the project area during operation and maintenance activities, which will reduce the potential for vehicle heat to ignite dry vegetation and start fires. Therefore, impacts resulting from operation and maintenance associated with the substation will be less than significant.

Power Line Route

Operation and maintenance activities along the reconductoring segment will not change from existing activities; therefore, no new impacts associated with the risk of wildfires along the reconductoring segment will occur.

Operation and maintenance activities along the new 70 kV power line segment will include regular vegetation clearing under G.O. 95 to provide defensible space between the power line and adjacent lands to minimize the potential for fire. Vehicles will generally use existing roads to access the project area during operation and maintenance activities, which will reduce the potential for vehicle heat to ignite dry vegetation and start fires. Therefore, impacts resulting from operation and maintenance associated with the power line route will be less than significant.

3.8.5 References

ASTM International (ASTM). 2013. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. ASTM Standard E 1527-13

California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA: Adopted by CAL FIRE on November 7, 2007. Scale 1:150,000. Online: http://frap.fire.ca.gov/webdata/maps/santa_barbara/fhszs_map.42.pdf. Accessed August 2016.

____. 2009. Very High Fire Hazard Zones in LRA – As Recommended by CAL FIRE. Scale 1:150,000. Online: http://frap.fire.ca.gov/webdata/maps/san_luis_obispo/fhszl_map.40.pdf. Accessed August 2016.

California Department of Toxic Substances Control (DTSC). 2016. EnviroStor database. Online: http://www.envirostor.dtsc.ca.gov/public/. Accessed August 2016.

California Inter-Utility Coordinating Committee. 2010. *California Joint Utility Traffic Control Manual 13*. Fifth Edition. April 2010.

City of El Paso de Robles. 2003. *City of El Paso de Robles General Plan. Safety Element*. As amended through November 18, 2014. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/SafetyElement.pdf. Accessed July 25, 2016

____. 2016. *Final Local Hazard Mitigation Plan*. Prepared by AECOM. February 2016. Online: http://www.prcity.com/government/LHMP.asp. Accessed August 2016.

County of San Luis Obispo. 1999. *County of San Luis Obispo General Plan, Safety Element*. December 1999. As amended through December 3, 2013. . Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf. Accessed July 25, 2016.

_____. 2001. *San Luis Obispo County Hazardous Materials Emergency Response Plan.* August 2001. Revised February 2003. Online: http://www.slocounty.ca.gov/Assets/OES/Plans/HazMat+Plan.pdf. Accessed August 2016.

____. 2010. *County of San Luis Obispo General Plan, Conservation and Open Space Element*. May 2010. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed July 25, 2016.

____. 2011. *San Luis Obispo County Local Hazard Mitigation Plan*. July 2011. Online: http://www.slocounty.ca.gov/Assets/OES/Plans/Hazard+Mitigation+Plan+2011.pdf. Accessed August 2016.

____. 2016a. Interactive GIS Mapping Program. Online: http://www.sloplanning.org/PermitViewMap/MapSearch. Accessed on July 25, 2016.

____. 2016b. Naturally Occurring Serpentine Rock Map. Online: http://www.sloplanning.org/gis/mapimagepdf/serprock.pdf. Accessed on September 28, 2016.

County of San Luis Obispo Airport Land Use Commission. 1977. *Airport Land Use Plan for the Paso Robles Municipal Airport*. November 1977. As amended through May 16, 2007. Online: http://www.prcity.com/government/departments/publicworks/airport/pdf/ALUP/ALUPdocument.pdf. Accessed July 25, 2016.

Federal Energy Regulatory Commission (FERC). 2015. *Tree Trimming & Vegetation Management*. Online: http://www.ferc.gov/industries/electric/indus-act/reliability/vegetation-mgt.asp. Accessed on August 9, 2016.

National Atmospheric and Oceanic Administration (NOAA). 2016. National Weather Service Forecast Office-NOWData – NOAA Online Weather Data. Monthly Climate Normals (1981-2010)-Paso Robles. Online: http://www.ncdc.noaa.gov/cdo-web/datatools/normals. Accessed June 2016.

National Fire Protection Association (NFPA). 2015. NFPA Overview. Online: http://www.nfpa.org/. Accessed on June 10, 2015.

North American Electric Reliability Corporation (NERC). 2015. *Reliability Standards for the Bulk Electric Systems of North American*. North American Electric Reliability Corporation. May 19, 2015.

____. 2016. North American Electric Reliability Corporation, Homepage. Online: http://www.nerc.com/Pages/default.aspx. Accessed August 2016.

Rincon Consultants, Inc. 2003. *City of Paso Robles General Plan Update EIR, Section 4.5, Geological Hazards*. August 2003.

State Water Resources Control Board (SWRCB). 2016. GeoTracker database. Online: http://geotracker.waterboards.ca.gov/. Accessed August 2016.

URS Corporation. 2005. *City of Paso Robles Hazard Mitigation Plan*. Section 6, p. 44-45. Online: http://www.prcity.com/government/pdf/LHMP/Sect6.0.pdf. Accessed August 2016.

U.S. Environmental Protection Agency (EPA). 2015a. Resource Conservation and Recovery Act. Online: http://www.epa.gov/agriculture/lrca.html. Accessed on February 5, 2015.

____. 2015b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Online: http://www.epa.gov/superfund/policy/cercla.htm. Accessed on February 5, 2015.

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3.9 HYDROLOGY AND WATER QUALITY

3.9.1 Introduction

This section describes existing conditions and potential impacts to hydrological resources (surface and groundwater), water quality, drainage patterns, and flooding as a result of construction, operation, and maintenance of the project. The analysis concludes that impacts will be less than significant in these areas, and implementation of Applicant-Prepared Measures (APMs) described in Section 3.9.4, Applicant-Proposed Measures and Potential Impacts, will further reduce less-than-significant impacts. The project's potential effects on hydrology, water quality, and flooding were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.9-1, CEQA Checklist for Hydrology and Water Quality, below and discussed in more detail in Section 3.9.4.

Table 3.9-1. CEQA Checklist for Hydrology and Water Quality

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY ***Would the project:***				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

Table 3.9-1. CEQA Checklist for Hydrology and Water Quality

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

3.9.2 Regulatory Background and Methodology

3.9.2.1 Regulatory Background

Federal

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers (USACE) studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps used in the National Flood Insurance Program (NFIP) (United States Code [U.S.C.] Title 42, Chapter 50, Section 4102). These maps identify the locations of special flood hazard areas, including 100-year floodplains. FEMA allows non-residential development in the floodplain; however, FEMA has criteria to "constrict the development of land which is exposed to flood damage where appropriate" and "guide the development of proposed construction away from locations which are threatened by flood hazards." Federal regulations governing development in a floodplain are set forth in Code of Federal Regulations (CFR) Title 44, Part 60, enabling FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

Clean Water Act Section 404

Section 404 of the federal Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) requires a permit from USACE for the discharge of dredged or fill material into "waters of the United States," which include rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The limits of non-tidal waters extend to the Ordinary High Water Mark (OHWM) or to the limit of adjacent wetlands. The U.S. Environmental Protection Agency (USEPA) also has authority over wetlands and may veto a USACE permit under CWA Section 404(c).

Clean Water Act Section 303(d)

CWA Section 303(d) (33 U.S.C. 1313) requires states, territories, and authorized tribes to develop a list of waters within its boundaries that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law further requires that these jurisdictions establish priority rankings for water on the lists and develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality (State Water Resources Control Board [SWRCB] 2012). The Regional Water Quality Control Boards (RWQCBs) and SWRCB implement this federal regulation in California.

State

Clean Water Act Section 401

CWA Section 401 (33 U.S.C. 1251 et seq.) requires states to certify whether projects subject to federal permits meet state water quality standards. In California, RWQCBs and SWRCB issue such certifications. The project is under the jurisdiction of the Central Coast RWQCB (CCRWQCB). If the project requires a USACE permit, a Water Quality Certification will be required.

Clean Water Act Section 402

Under CWA Section 402 (33 U.S.C. 1251 et seq.), the National Pollutant Discharge Elimination System (NPDES) controls water pollution by regulating sources of pollution to waters of the United States. The CWA is implemented on a state and local level in California primarily by SWRCB and the nine RWQCBs, collectively. Whereas the federal NPDES program mostly pertains to point source control, current focus and regulation is shifting to non-point source pollution control under the authority of RWQCBs. Projects that disturb 1 or more acres of soil are required to obtain coverage under the state NPDES General Permit for Stormwater Discharges from Construction Activities. A Stormwater Pollution Prevention Plan (SWPPP) must be developed and implemented for each project covered by the general permit. The SWPPP must include Best Management Practices (BMPs) that are designed to reduce potential impacts to surface water quality during project construction and operation.

Porter-Cologne Water Quality Control Act (California Water Code, Division 7)

Under this state law, SWRCB has authority over state waters and water quality. "Waters of the state" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050[e]). This definition differs from the CWA definition of waters of the United States by its inclusion of groundwater and waters outside the OHWM. Examples include, but are not limited to rivers, streams, lakes, bays, marshes, mudflats, unvegetated and seasonally ponded areas, drainage swales, sloughs, wet meadows, natural ponds, vernal pools, diked baylands, seasonal wetlands, and riparian woodlands. RWQCBs have local and regional authority. CCRWQCB has authority in the project area. RWQCBs prepare and periodically update Basin Plans (water quality control plans), which establish:

- beneficial uses of water designated for each protected water body;
- water quality standards for both surface water and groundwater; and,
- actions necessary to maintain these water quality standards.

Projects that discharge waste to waters of the State must file a report of waste discharge with the appropriate RWQCB, if the discharge could affect the quality of waters of the State (Article 4, Section 13260). RWQCB will issue waste discharge requirements or a waiver of the waste discharge requirements for the project. The requirements will implement any relevant water quality control plans that have been adopted, and must take into consideration the beneficial uses to be protected and the water quality objectives reasonably required for that purpose (Article 4, Section 13263).

Fish and Game Code Section 1602

This section of California law protects the natural flow, bed, channel, and bank of any river, stream, or lake under the jurisdiction of the California Department of Fish and Wildlife (CDFW). Project plans must be submitted to CDFW that are sufficient to indicate the nature of a project for construction if the project would:

- substantially divert, or obstruct the natural flow of a jurisdictional river, stream, or lake;
- substantially change or use material from the bed, channel, or bank; or,
- result in the disposal or deposition of debris, waste, or other material containing crumbed, flaked, or ground pavement where it can flow into a river, stream, or lake.

For projects substantially impacting the bed, bank, or flow of waters under CDFW jurisdiction, applicants must submit a Notification of Lake or Streambed Alteration to CDFW so that the department may issue an agreement if staff determines that the activity may substantially adversely affect fish and wildlife resources.

Sustainable Groundwater Management Act

In September 2014, legislation was passed to strengthen local management and monitoring of groundwater basins most critical to the state's water needs. The Sustainable Groundwater Management Act prioritizes groundwater basins that are currently over-drafted and sets a timeline for implementation:

- By 2017 local groundwater management agencies must be identified;
- By 2020 over-drafted groundwater basins must have sustainability plans;
- By 2022 other high and medium priority basins not currently in overdraft must have sustainability plans; and,
- By 2040 all high and medium priority groundwater basins must achieve sustainability.

The Sustainable Groundwater Management Act also provides measurable objectives and milestones to reach sustainability and a state role of limited intervention when local agencies are unable or unwilling to adopt sustainable management plans.

California Statewide Groundwater Elevation Monitoring Program

In 2009, Senate Bill (SB) X7-6 was passed to modify the California Water Plan by requiring parties who wish to monitor their groundwater supply to notify and begin reporting to the California Department of Water Resources (DWR). SB X7-6 is now known as the California DWR Statewide Groundwater Elevation Monitoring (CASGEM) program. As part of this effort, DWR prepared the Groundwater Basin Prioritization, which is a statewide ranking of groundwater basin importance that incorporates groundwater reliance and focuses on basins producing more than 90% of the state's annual groundwater. Finalized in June 2014, the Basin Prioritization indicates that 127 of California's 515 groundwater basins and subbasins are High and Medium priority. These basins account for 96% of California's annual groundwater pumping and supply 88% of the population which resides over groundwater basins. The remaining 388 basins are Low and Very Low priority and comprise 75% of the groundwater basins in the State (DWR 2014a). Basins ranked as High or Medium priority by the CASGEM Basin Prioritization Process have been estimated to have higher potential for future subsidence (DWR 2014b).

Water Quality Control Plan for the Central Coast Basin

The objective of the Water Quality Control Plan for the Central Coast Basin (2016 Basin Plan) is to guide how the quality of surface and ground waters in the Central Coast Region should be managed. The Basin Plan identifies various beneficial water uses and the water quality that must be maintained to allow those uses. The Basin Plan also describes an implementation plan necessary to achieve the standards established in the plan and summarizes SWRCB and RWQCB plans and policies to protect water quality. CCRWQCB implements the plan by issuing and enforcing waste discharge requirements based on either state waste discharge requirements or federally delegated NPDES permits for discharges to surface water.

CCRWQCB Central Coast Post-Construction Requirements

On July 12, 2013, CCRWQCB adopted the Central Coast Post-Construction Requirements. These standards apply to all new development projects in designated Stormwater Management Areas resulting in 2,500 square feet or more of net impervious surface area. The urbanized portions of the Central Coast Region are categorized into 10 Watershed Management Zones (WMZs), based on common key watershed processes and receiving water type (creek, marine nearshore waters, lake, etc.). The primary objective of these requirements is to ensure that the permittee is reducing pollutant discharges to the maximum extent practicable and preventing stormwater discharges from causing or contributing to a violation of water quality standards in all applicable development projects that require approvals and/or permits issued under the permittee's planning, building, or other comparable authority. The Post-Construction Requirements emphasize protecting and, where degraded, restoring key watershed processes to create and sustain linkages between hydrology, channel geomorphology, and biological health necessary for healthy watersheds. Maintenance and restoration of watershed processes impacted by stormwater management is necessary to protect water quality and beneficial uses. These requirements are adopted by the County of San Luis Obispo (County) under the Stormwater Management Ordinance (Title 19).

Local

Because CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local discretionary regulations. PG&E and NEET West will secure ministerial permits, as required. Although County and other local polices are provided below, they are provided for information purposes only.

The Planning Division of the County Planning and Building Department as well as the Building Division of the City of El Paso de Robles (City) Community Development Department require and enforce standards contained in the California Building Code related to grading and construction, including those that may directly or indirectly affect surface water quality by contributing to erosion or siltation or altering existing drainage patterns.

Paso Robles Groundwater Basin Management Plan

The 2011 *Paso Robles Groundwater Basin Management Plan* (County of San Luis Obispo 2011a) is a collaborative effort between the County Flood Control and Water Conservation District and the City. The plan was developed in light of a recent monitoring report indicating that some areas of the basin were experiencing significant declines in groundwater elevation despite the fact that outflows were calculated to be at or below annual yield. The purpose of this plan is to develop a common understanding of the groundwater issues and management opportunities in the basin and identify and support projects such as conjunctive use, recycled wastewater, and demand management, which will improve groundwater management.

Paso Robles Stormwater Management Program

The City of Paso Robles is enrolled in the Phase II Municipal Storm Water Program as required by the SWRCB. The program requires the City to develop and implement a Storm Water Management Plan (SWMP) in order to reduce or eliminate pollutants in stormwater runoff and non-stormwater discharges for projects within City jurisdiction. The SWMP describes the BMPs, measurable goals, and timetables for implementation of the following six minimum control measures: public education and public participation; construction site stormwater runoff control; post-construction stormwater runoff management; illicit discharge detection and elimination; pollution prevention; and good housekeeping for municipal operations. As stated above, the project is not subject to the City SWMP; however, the project will comply with the post-construction standards required as part of the state NPDES General Permit for Stormwater Discharges from Construction Activities.

County of San Luis Obispo Stormwater Management Program

The County's SWMP defines the method for selecting and prioritizing BMPs for projects within the County's jurisdiction under each category and provides a description, timetable, and set of measurable goals for each. The SWMP assigns responsibilities for implementation and describes the method for updating the SWMP and submitting annual reports. The SWMP also provides an integrated approach for prevention of pollution from stormwater runoff in San Luis Obispo County. The program relies heavily on public education and outreach and public participation and involvement to prevent pollution problems at the source. The program seeks to employ the most cost-effective means to achieve the objectives of the NPDES Phase II Final Rule and the MS4 (municipal separate storm sewer systems) General Permit, and to coordinate stormwater runoff pollution prevention efforts throughout the county. As stated above, the project is not subject to the County SWMP; however, the project will comply with the post-construction standards required as part of the state NPDES General Permit for Stormwater Discharges from Construction Activities.

County of San Luis Obispo General Plan

The *Conservation and Open Space Element* of the *County of San Luis Obispo General Plan* (County of San Luis Obispo 2010) establishes goals, policies, and implementation measures for the conservation and protection of important natural resources such as water quality.

> ***Goal 3.*** *Excellent water quality will be maintained for the health of people and natural communities.*

> ***Policy WR 3.1.*** *Take actions to prevent water pollution, consistent with federal and state water policies and standards, including but not limited to the federal Clean Water Act, Safe Drinking Water Act, and National Pollutant Discharge Elimination System (NPDES).*
>
> ***Goal 6. Damage to life, structures, and natural resources from floods will be avoided.***
>
> ***Policy WR 6.4.*** *Assure that proposed development integrates ecosystem enhancement, drainage control, and natural recharge as applicable.*
>
> ***Policy WR 6.5.*** *Prohibit channelization or major alteration of streams. Minor work in streambeds may be necessary to protect valuable farmland from erosion.*

The *Safety Element* of the *County of San Luis Obispo General Plan* (County of San Luis Obispo 1999) establishes goals, policies, and implementation measures for the avoidance of loss of life, property, and economic well-being as a result of disasters through emergency preparation and the management of development to reduce risk.

> ***Goal S-2.*** *Reduce damage to structures and the danger to life caused by flooding, dam inundation and tsunami.*
>
> ***Policy S-8.*** *Strictly enforce flood hazard regulations both current and revised. FEMA regulations and other requirements for the placement of structures in flood plains shall be followed. Maintain standards for development in flood-prone and poorly drained areas.*
>
> ***Policy S-12.*** *Minimize the risk of dam failure.*

County of San Luis Obispo 2011 Public Improvement Standards

The *Public Improvement Standards* consist of three major components: design standards, construction specifications, and standard construction drawings. The standards cover improvement plans, site preparation and earthwork, roadways, road edges, storm drainage, water supply, wastewater disposal, utilities, traffic control, and project completion. The standards establish the minimum requirements for the design and construction of any public improvement within County jurisdiction in San Luis Obispo County, including any subdivision or land use permit where the improvement is determined to be of sufficient public benefit that compliance with the standards is required by the conditions of County approval.

County of San Luis Obispo Stormwater Pollution Prevention and Discharge Control Ordinance (Title 8.68)

The stated purpose of this County ordinance is to ensure the health, safety, and general welfare of the citizens of San Luis Obispo County by protecting and enhancing the water quality of watercourses and water bodies in a manner pursuant to and consistent with the CWA by controlling non-stormwater discharges to the municipal-separate storm drain system, reducing pollutants in the stormwater discharges to the maximum extent practicable, and protecting urban watercourses from pollution.

County of San Luis Obispo Drainage Regulations (Title 22)

The stated purpose of these County regulations is to provide standards for the control of drainage and drainage facilities, for designing projects to minimize harmful effects of stormwater runoff and resulting inundation and erosion on proposed projects, and to protect neighboring and downstream properties from drainage problems resulting from new development.

City of El Paso de Robles General Plan

The *Conservation Element* of the *City of El Paso de Robles General Plan* (City of El Paso de Robles 2003a) addresses the long-term protection of the environment, resource planning management, and minimizing the degradation of nonrenewable resources for projects within City jurisdiction.

> ***Policy C-1A.*** *Water Source, Supply, and Distribution. Develop and implement various innovative water provision and conservation programs that help to ensure an adequate supply of water for the City.*
>
> > ***Action Item 5.*** *Maintain potable water quality via the following measures:*
> >
> > > *a. Continue to monitor City water supplies wells for water quality requirements of the Department of Health Services and other regulatory agencies.*
> > >
> > > *b. Encourage minimization of applications of agricultural chemical fertilizers and pesticides and enforce conservative application of agricultural waters.*
> > >
> > > *c. Provide treatment and distribution systems needed to assure conveyance of potable water that meets all water regulations.*
> > >
> > > *d. Incorporate LID features with all development in compliance with the "Joint Effort" permit requirements to filter and clean storm water through natural systems before it enters surface and groundwater supplies.*

The *Conservation Element* of the City General Plan (City of El Paso de Robles 2003b) addresses the community risks associated with fires, flood, geologic hazards, and other phenomena for projects within City jurisdiction.

> ***Goal S-1:*** *Minimize exposure to natural and manmade hazards.*
>
> ***Policy S-1D.*** *Structural Safety. Rely on the City's planning and building permit review process to ensure that existing and proposed structures are adequately*

designed, and to reduce susceptibility to damage from fire, flooding, and geologic hazards.

Policy S-1G. *Maintain the structural and operational integrity of essential public facilities during flooding by taking safe guards such as locating new facilities outside of flood zones or areas subject to localized flooding, and audit existing facilities in these areas to determine if building upgrades should be considered to reduce the potential for future flooding.*

3.9.2.2 Methodology

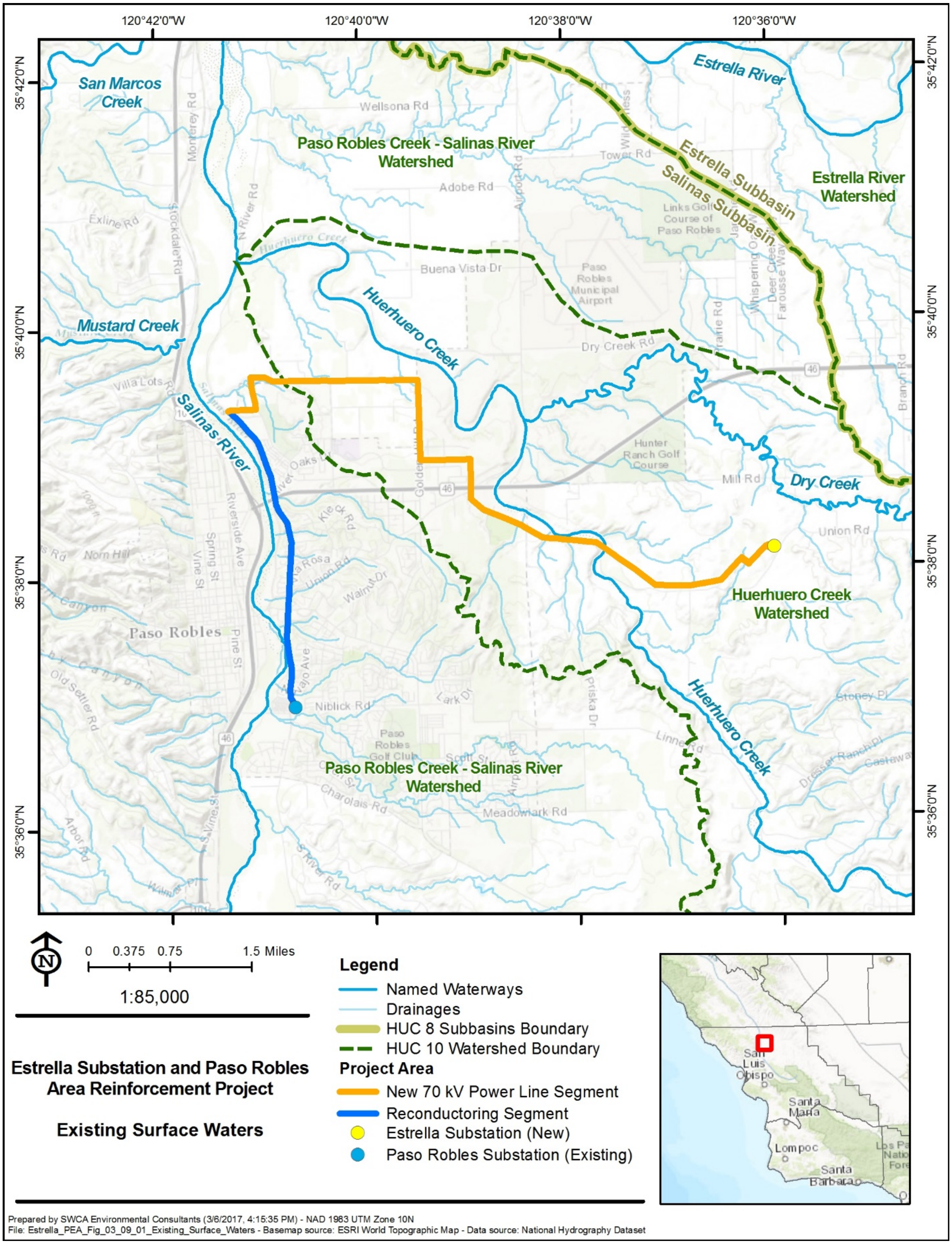
This impact analysis considers whether implementation of the project will result in significant impacts to hydrology and water quality. The analysis focuses on reasonably foreseeable effects of the project as compared with baseline conditions. The analysis uses significance criteria based on the Appendix G of the CEQA Guidelines. The potential direct and indirect effects of the project are addressed. Applicable APMs are identified to avoid or further reduce less-than-significant hydrologic and water resources impacts.

Water resources and potential impacts to hydrology and water quality as a result of the project were evaluated by reviewing water quality studies, water management plans, and relevant information from federal, state, and local water resource agencies with jurisdiction in the project area. These included the *County of San Luis Obispo General Plan* and *City of El Paso De Robles General Plan*, as well as the CCRWQCB Basin Plan, the County *Integrated Regional Water Management Plan*, the *Paso Robles Groundwater Basin Management Plan*, the County *Master Water Report*, the County *Hydrologic Report*, and the County *Resource Capacity Study – Water Supply in the Paso Robles Groundwater Basin*. FEMA maps were referenced to identify flood zones in proximity to the project area. U.S. Geological Survey (USGS) 7.5-minute series quadrangle maps, aerial photography, and National Wetland Inventory (NWI) maps of the project area were also examined to identify major water features, wetlands, and drainage patterns. Information regarding local groundwater formations was also researched through the DWR website, as groundwater is the primary source of domestic water in the area.

General reconnaissance-level surveys for the power lines were conducted to identify waters, wetlands, and riparian areas that are potentially under the jurisdiction of USACE, CDFW, and/or RWQCB. All areas within 200 feet (a 400-foot-wide corridor) of the new 70 kV power line segment, 50 feet (a 100-foot-wide corridor) of the reconductoring segment, and 250 feet of Estrella Substation were surveyed.

Potential jurisdictional wetlands and waters of the State and United States were mapped at the desktop level using data available from the NWI (USFWS 2016), USGS National Hydrography Dataset (USGS 2016), USGS topographic maps, and aerial photographs. Wetland mapping field efforts were conducted in all areas suspected of having potentially jurisdictional wetlands or waters. Presence of hydrophytic vegetation, hydrological conditions, hydric soil indicators, OHWMs, and/or defined bed and banks were evaluated. Areas identified as potentially jurisdictional waters are shown in Figure 3.9-1, Existing Surface Waters. Because the project is designed to avoid all potentially jurisdictional waters, a formal jurisdictional delineation was not conducted.

Figure 3.9-1. Existing Surface Waters



3.9.3 Environmental Setting

3.9.3.1 Regional Setting

The project is located in the Salinas Valley, which is within the Central Coast Hydrologic Region. The Central Coast Hydrologic Region includes all of Santa Cruz, Monterey, San Luis Obispo, and Santa Barbara Counties, most of San Benito County, and parts of San Mateo, Santa Clara, and Ventura Counties. Significant geographic features include: the Pajaro, Salinas, Carmel, Santa Maria, Santa Ynez, and Cuyama Valleys; the coastal plain of Santa Barbara; and the Coast Ranges. Major drainages in the region include the Salinas, Cuyama, Santa Ynez, Santa Maria, San Antonio, San Lorenzo, San Benito, Pajaro, Nacimiento, Carmel, and Big Sur Rivers (DWR 2003).

The Central Coast Hydrologic region encompasses the entire Salinas Valley Basin and Salinas Valley Groundwater Basin. For surface waters, the project is located within the Salinas Subbasin (HUC 8), and is divided between two watersheds (HUC 10)—the Paso Robles Creek-Salinas River sub-watershed to the west and the Huerhuero Creek sub-watershed to the east (California Department of Conservation [DOC] 2010; San Francisco Estuary Institute 2016).

The County Flood Control and Water Conservation District divides the county into several Water Planning Areas (WPAs). The Salinas/Estrella WPA includes the San Miguel Community Services District, Camp Roberts, Paso Robles, Shandon, and agricultural and rural users. The primary sources of water supply for this WPA are the Paso Robles Groundwater Basin and the Nacimiento Water Project (County of San Luis Obispo Flood Control and Water Conservation District 2012).

The Paso Robles Groundwater Basin (or Paso Robles Subbasin) is located within the greater Salinas Valley Groundwater Basin. Within the Central Coast Hydrologic Region, groundwater accounted for 83% of the annual supply used for agricultural and urban purposes in 1995 and groundwater in the region accounts for about 8.4% of the statewide groundwater supply for an average year (DWR 2003).

The Paso Robles Subbasin is divided further into subareas for management purposes, although these areas do not constitute geologically separate subdivisions. The project site is located within the Estrella Subarea of the Paso Robles Groundwater Basin (County of San Luis Obispo 2011a).

The project site elevation ranges from approximately 650 to 1,000 feet above mean sea level. The surface topography ranges from flat (0%) to gently sloping rolling hills (0–20%) to steep slopes (>45%) along roadside cuts. The majority of the project site parallels City and County roads and consists of agricultural land as well as suburban residential and commercial development.

3.9.3.2 Climate

San Luis Obispo County has a Mediterranean climate, which includes warm to hot, dry summers and mild to cool, wet winters. The coastal climate within San Luis Obispo County is generally mild with average temperatures ranging from 45 to 70 degrees Fahrenheit (°F). Inland temperatures are much more variable with average temperatures ranging from 35 to 93°F. Precipitation in the region also varies spatially and temporally with increasing precipitation typically occurring near the coast. Average annual rainfall in the vicinity of the project is 15.2 inches with approximately 90% of the rain falling between October and April. Average monthly rainfall in the summer months is significantly lower than the winter months only averaging about 0.2 inches per month between May and September. The above temperature and precipitation data is based on Monthly Climate Normals data published by the National Oceanic and Atmospheric Administration (NOAA) from the Paso Robles, California climate station (COOP:046730), located approximately 0.3 mile west of the project for the period between 1981 and 2000 (NOAA 2016).

When rainfall is less than normal for several weeks, months, or years, the flow of streams and rivers declines, water levels in lakes and reservoirs fall, and the depth to water in wells increases. If dry weather persists and water supply problems develop, the dry period can become a drought. On March 11, 2014, the County Board of Supervisors adopted a resolution proclaiming a local emergency due to drought conditions in San Luis Obispo County. The County has established a task force that monitors and tracks drought conditions on a monthly basis. Drought conditions are categorized by intensity from D0 (Abnormally Dry) to D4 (Exceptional Drought). Although 2016 has been recorded as California's wettest year since the drought began, San Luis Obispo County as a whole has remained at the D4 rating (County of San Luis Obispo 2016).

3.9.3.3 Surface Water

Drainage in the project area has been affected by agriculture and development to the extent that some natural watercourses no longer exist and some drainage in the area follows human-made channels or diversions. In particular, surface runoff at Estrella Substation drains downslope, south toward Union Road and into a tributary of Huerhuero Creek. The greater substation vicinity has an overall northwest slope that follows the parallel Huerhuero Creek and Dry Canyon corridors.

The 70 kV power line segment crosses Huerhuero Creek and a number of unnamed drainages and swales, which flow into receiving waters such as Huerhuero Creek, Dry Creek, and Salinas River. In addition, Salinas River, which is monitored and managed by CCRWQCB, has been evaluated for beneficial uses, and a portion of the river is listed as impaired under CWA Section 303(d). No other named creeks or drainages are 303(d)-listed, but Upper Salinas River is a receiving water for each of the following creeks and drainages. These features are mapped on Figure 3.9-1, Existing Surface Waters, and described further below.

Salinas River

Salinas River is the largest river of the Central Coast, running 170 miles from Santa Margarita flowing north-northwest through the central California Coast Ranges to Monterey Bay. Salinas River is a wildlife corridor, and provides the principal source of water from its reservoirs and tributaries for the farms and vineyards of the Salinas Valley. In Paso Robles, the river bisects the city, running generally north toward San Miguel, aligned east of U.S. Highway 101. The project does not cross Salinas River, but the reconductoring segment of the project generally follows the river, east of Salinas River Road, for approximately 3 miles. As described in Section 3.3, Biological Resources, Central Coast cottonwood-willow riparian forest habitat was observed on the west end of the new 70 kV power line segment study area bordering Salinas River. At its nearest point, this Salinas River riparian forest habitat ranges from approximately 150 to 1,300 feet west of the project. Salinas River is subject to USACE, CDFW, and RWQCB jurisdiction.

Upper Salinas River, from Nacimiento River to Santa Margarita Reservoir, has several identified beneficial uses, including municipal and domestic supply (MUN); agricultural supply (AGR); industrial process supply (PROC); groundwater recharge (GWR); water contact and non-contact recreation (REC1 and REC2); wildlife habitat (WILD); cold fresh water habitat (COLD); warm fresh water habitat (WARM); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); rare, threatened, or endangered species (RARE); and commercial and sport fishing (COMM) (CCRWQCB 2016).

Upper Salinas River is listed as impaired by SWRCB on the most recently approved Section 303(d) listing (SWRCB 2016). Pollutant categories include salinity (chloride and sodium) and pH (miscellaneous pollutants). There is no existing Total Maximum Daily Load (TMDL), and the expected TMDL completion date is 2021. Sources of Salinas River pollutants have not been identified by CCRWQCB. Most commonly, salinity pollution is caused by excessive runoff from activities such as agricultural irrigation or mining, although saltwater intrusion into groundwater as a result of aquifer depletion is also a potential cause. The pH of a river can be affected by point sources of pollution, organic nutrients, domestic and industrial chemicals, and mining runoff (Water Research Center 2014).

Huerhuero Creek

Huerhuero Creek flows over 14 miles northwest from the Coast Range south of Creston to Salinas River in Paso Robles. The creek is divided into two main drainages, bisected by State Route (SR-) 41. The primary land use along this creek is agriculture, largely dominated by vineyards. Flows are ephemeral and the creek is a dry wash in most locations throughout the year, supporting scattered shrubs and trees (Upper Salinas Las Tablas Resource Conservation District [US-LT RCD] 2012). The project spans Huerhuero Creek approximately 1,000 feet east of the intersection of Union Road and Kit Fox Lane. Huerhuero Creek is likely to be subject to USACE, CDFW, and RWQCB jurisdiction.

Dry Creek

Dry Creek is an ephemeral drainage originating from the coastal mountain foothills approximately 4 miles northeast of Creston, flowing over 13 miles northwest through blue oak woodland to Huerhuero Creek near Airport Road, approximately 0.6 mile north of SR-46. The project, at its nearest point, is approximately 1,500 feet south of Dry Creek and does not cross the drainage. Dry Creek is likely to be subject to USACE, CDFW, or RWQCB jurisdiction.

Other Drainages

Twelve unnamed ephemeral drainages were observed within the project area, eight of which occur along the new 70 kV power line segment and four along the reconductoring segment. These features convey overland flow and eventually drain into Huerhuero Creek and/or Salinas River. These drainage features generally contain an understory of annual grasses and forbs with blue oak woodlands lining the drainage channels. These twelve drainage features are likely to be considered jurisdictional by USACE, CDFW, and RWQCB.

Wetlands

Five potentially jurisdictional wetland features are present in the BSA, only two of which occur within the project area. These wetland features may be considered jurisdictional by USACE and RWQCB. For a description of wetlands in the project area, refer to Section 3.4, Biological Resources.

Non-jurisdictional Drainages

Other drainage features observed either: a) did not exhibit an Ordinary High Water Mark (OHWM), b) did not have an apparent connection to downstream waters of the United States, or c) did not meet the definition of a USACE jurisdictional wetland, and are therefore not likely to be considered jurisdictional by USACE or waters of the State under the jurisdiction of SWRCB. These features did not contain defined bed and banks or riparian-influenced habitats and are therefore not likely to be considered jurisdictional by CDFW.

Near Estrella Substation, three drainage swales were observed that generally flow toward Dry Creek and one drainage swale was observed that generally flows to Salinas River, but none of these features exhibited a defined bed, bank, or OHWM. All of these localized drainages occur outside of the project area. Land cover along the new 70kV power line segment primarily consists of agricultural areas and residential and commercial developments. Overland sheet flow and agricultural runoff along the new 70 kV power line segment is conveyed through various swale features that eventually drain into nearby streams or storm drains. These swale features, however, do not contain a defined bed, bank, or OHWM and, therefore, are not considered to be jurisdictional. Non-jurisdictional features observed along the power line route were not mapped during the field surveys.

Land cover along the reconductoring segment primarily consists of dense residential and commercial developments. Stormwater that flows through the project area flows through a series of City storm drains or flows overland through drainage swales towards the Salinas River. Similarly, these drainage swales do not contain a defined bed, bank, or OHWM and, therefore, are not considered to be jurisdictional.

3.9.3.4 Groundwater

The project is located within the Salinas Valley Groundwater Basin and Paso Robles Area Subbasin (DWR Basin No. 3-4.06). The Paso Robles Subbasin has a surface area of 597,000 acres (932 square miles) and is bordered on the north by the Upper Valley Aquifer Subbasin, on the east by the Temblor Range, on the south by the La Panza Range, and on the west by the Santa Lucia Range. The subbasin is drained by Salinas River and Estrella, San Juan, and Huerhuero Creeks. Natural recharge in the subbasin is derived from infiltration of precipitation, seepage from streams, and return flow from irrigation and other uses. Groundwater flow is generally northwestward (County of San Luis Obispo 2005; DWR 2016). The Paso Robles Area Subbasin is mapped on Figure 3.17-1, Paso Robles Groundwater Basin.

Groundwater is found in Holocene age alluvium and the Pleistocene age Paso Robles Formation. Holocene age alluvium consists of unconsolidated, fine- to coarse-grained sand with pebbles and boulders. This alluvium provides limited amounts of groundwater and reaches 130 feet thick near Salinas River, but is generally less than 30 feet thick in the minor stream valleys. Its high permeability results in a well production capability that often exceeds 1,000 gallons per minute (gpm). Groundwater in Holocene alluvium is mostly unconfined. Pleistocene age Paso Robles Formation, which is the most important source of groundwater in the subbasin, is unconsolidated, poorly sorted, and consists of sand, silt, gravel, and clay. This formation reaches a thickness of 2,000 feet and groundwater within it is generally confined (DWR 2003).

The Paso Robles Subbasin supplies water for 29% of the County's population and an estimated 40% of the agricultural production of the County (County of San Luis Obispo 2011a). The basin serves the cities of Paso Robles and Atascadero; the communities of Templeton, Shandon, Creston, San Miguel, Bradley, and Camp Roberts; and the small community systems in Whitley Gardens and Garden Farms. Agricultural water users constitute an estimated 67% of the pumpage in the basin (County of San Luis Obispo 2011a).

Groundwater levels may fluctuate seasonally and over a period of years, reflecting the net effect of changes in recharge (e.g., percolation of precipitation and streamflow, infiltration of applied water, and subsurface inflow) and changes in outflow (e.g., pumping and subsurface outflow). Over the long term, if outflows are greater than the recharge (or "yield"), it is assumed that water is not being replaced. Outflows exceeding the perennial yield cannot be replaced through normal inflow conditions unless outflows are brought under the perennial yield by the same amount in a future year(s). Therefore, in the long term, basin health is dependent on keeping outflows under the perennial yield (County of San Luis Obispo 2011b).

The estimated perennial yield of the Paso Robles Groundwater basin is approximately 97,700 acre-feet per year (afy). Annual groundwater pumping has grown from approximately 74,061 afy in 1996 to 88,153 afy in 2006, or approximately 90% of the total annual yield. Approximately 66% of basin outflows occurred as a result of agriculture pumping, while 19% was pumped for urban municipal use, 12% was pumped for domestic water use in rural areas, and 3% was pumped for other use (County of San Luis Obispo 2011b).

Groundwater elevation data is variable in nature and does not necessarily reflect current or future conditions. Water wells can be installed to deep aquifers well below typical foundation depth, and do not reflect depth of shallow aquifers or perched water tables. County well data collected in the Atascadero Subbasin and Paso Airport Area indicate that the water surface generally occurs 100 feet below the ground surface, with historic lows occurring as low as 200 feet below the ground surface (County of San Luis Obispo 2005). Based on recent well logs available from DWR, static groundwater levels have been reported to be at elevations between 598 and 691 feet and between 30 and 227 feet below the ground surface at well locations, with the shallowest level recorded at Well No. 355878N1206914W001, approximately 3 miles north of Estrella Substation (DWR 2015). Groundwater elevation at Estrella Substation is reported by the adjacent property owner to occur at approximately 340 feet below ground surface. This measurement was registered in December 2009, at the time of well installation. Groundwater conditions are further discussed in the Estrella Substation Geotechnical Report. The Estrella Substation Geotechnical Report is included as Appendix L.

Although the CCRWQCB reports have indicated that groundwater levels have remained steady (DWR 2003), long-term County observation of groundwater levels has found a large area of drawdown. The project is located in the Estrella Subarea of the Paso Robles Subbasin, where the greatest change in groundwater elevations has occurred. The Estrella Subarea represents approximately 16% of the area of the groundwater basin but approximately 40% of all groundwater pumping in the county, and the amount of pumping has caused a substantial drop in groundwater elevations since 1980 (County of San Luis Obispo 2011b). County data indicates that spring groundwater levels have declined more than 70 feet between 1997 and 2009 in the most affected area (County of San Luis Obispo 2011a).

3.9.3.5 Flood Potential

Salinas River is located to the west of the project and Estrella River is located to the north. FEMA Flood Insurance Rate Maps (FIRMs) indicate that the project does not lie within a flood hazard area of Estrella River. The reconductoring segment of the project is located approximately 100 feet from the Salinas River 100-year flood zone, but does not cross this zone (FEMA 2016). The reconductoring segment crosses the 500-year flood zone at low-lying drainages into Salinas River near four areas: SR-46, Union Road, Capitol Hill Drive, and Navajo Avenue, as show on Figure 3.9-2, Flood Zones. The new 70 kV power line segment crosses into the Huerhuero Creek 100-year flood zone along a portion of the route south of SR-46 near Union Road starting from the east bank of Huerhuero Creek continuing west until Paso Robles Sports Club (Figure 3.9-2).

The Salinas Dam is located approximately 21 miles southeast of Santa Margarita in San Luis Obispo County. The dam can currently store up to 23,843 acre-feet of water. The failure of the Salinas Dam would flood an area of 1.07 square miles along Salinas River within the Paso Robles city limits as seen in Figure 3-9.2, Flood Zones. The depth of flooding due to the failure of this dam is unknown. There have been no recorded dam failures affecting Paso Robles (City of El Paso De Robles 2003b).

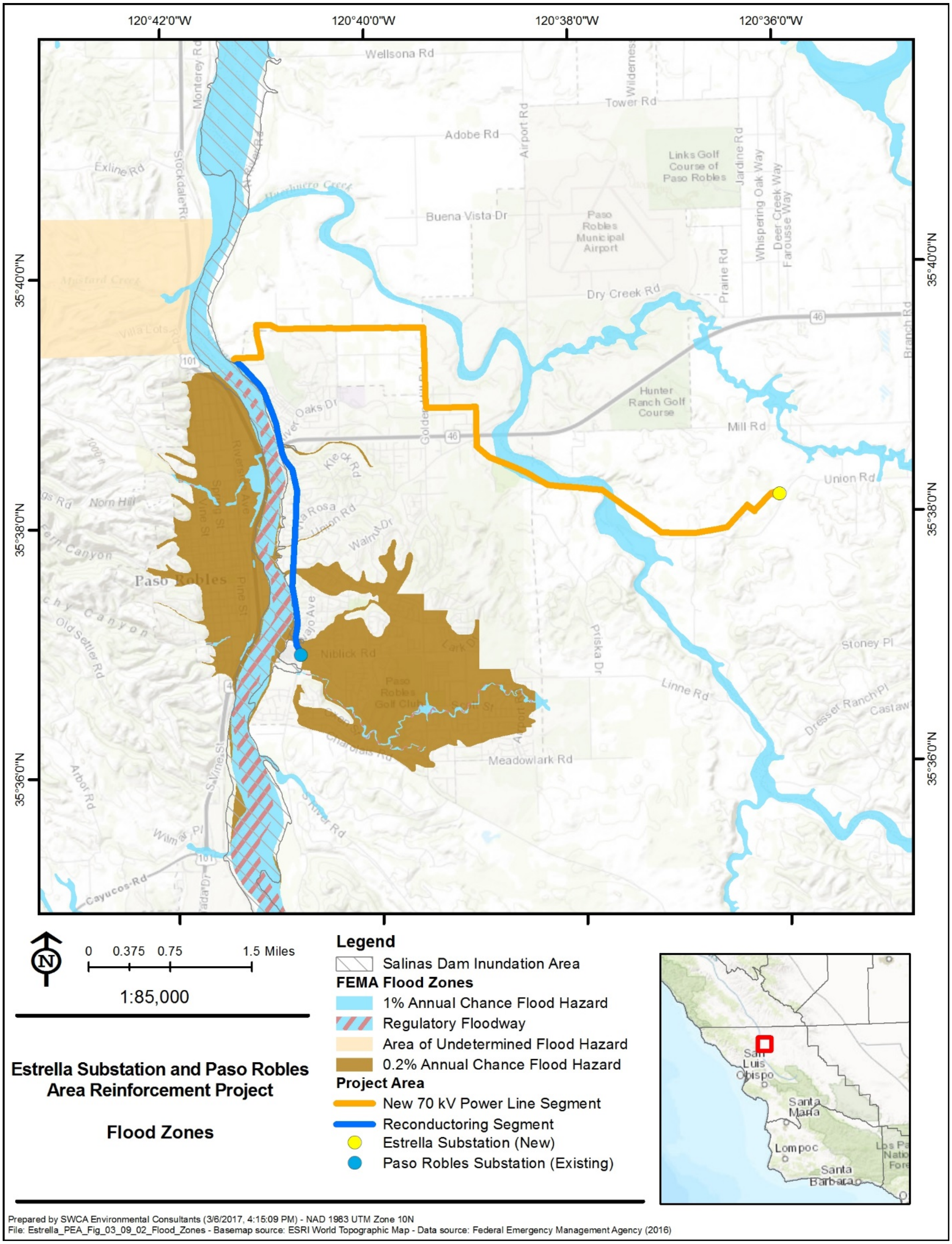
Several small tsunami events have been recorded in San Luis Obispo County; however, previous studies have predicted a maximum tsunami wave "runup" of approximately 9.5 feet above sea level for a 100-year event (County of San Luis Obispo 1999). The project is located at 650 to 1,000 feet above mean sea level more than 15 miles away from the Pacific coastline and is not in a tsunami inundation zone (DOC 2009).

Similar to a tsunami, a seiche is a standing wave phenomenon that can occur in an enclosed or partially enclosed body of water such as a large lake or bay as a result of seismic activity or meteorological effects. The project site is not located near a lake or reservoir and is not susceptible to seiche.

As described in Section 3.6, Geology and Soils, the project is located in an area of low-to-moderate landslide risk. Mudslides are generally triggered by heavy rainfall, high groundwater levels, or floods, and are generally caused by saturated and unstable soils as a result of heavy rains, droughts, or earthquakes.

Mudslides most often occur in areas with steep slopes or at the bottom of slopes or canyons. Mountainous areas that have been altered to build homes and roads are often prone to mudslides. When human actions or natural events, such as wildfires, increase erosion in an area, mudslides can be a natural result.

Figure 3.9-2. Flood Zones



3.9.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for hydrology and water quality impacts derived from Appendix G of the CEQA Guidelines, provide APMs, and assess potential project-related construction and operational hydrology and water quality impacts.

3.9.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts related to hydrology and water quality were evaluated for each of the criteria listed in Table 3.9-1, as discussed in Section 3.9.4.3, Potential Impacts.

3.9.4.2 Applicant-Proposed Measures

NEET West and PG&E will implement the following APMs:

Table 3.9-2. Applicant Proposed Measures for Hydrology and Water Quality

APM No.	Description
HYDROLOGY AND WATER QUALITY	
APM HYDRO-1	**<u>Avoidance of Sensitive Aquatic Features</u>.** The project will be designed to avoid sensitive aquatic features (i.e., jurisdictional wetlands, waters, and riparian areas) to the extent feasible. Specific avoidance strategies include: • Siting permanent structures in uplands outside of existing drainage features. • Siting staging areas, pole/tower work areas, pull sites, and other temporary staging/materials storage areas in uplands outside of existing drainage features/riparian areas, utilizing developed/urban, agricultural land, or ruderal land in preference to native terrestrial or riparian habitats. • Selecting access roads and overland travel routes in uplands while avoiding other sensitive features (e.g., steep slopes, rare plant localities, and sensitive wildlife habitats). • Should access or work areas be required through or within jurisdictional wetlands and waters, all regulated activities within jurisdictional wetlands and waters (e.g., waters of the United States and waters of the State) will require regulatory approval/permitting from the appropriate agency including USACE, CDFW, and/or RWQCB prior to any work within jurisdictional features. Prior to construction, sensitive aquatic features slated for avoidance will be identified in the field and clearly marked for avoidance using flagging tape, fencing, and/or high-visibility signage. Construction personnel will be trained on feature avoidance marking and associated restrictions.

3.9.4.3 Potential Impacts

Project impacts related to hydrology and water quality were evaluated against the CEQA significance criteria, as discussed below. This section evaluates potential project impacts from the construction phase and the operation and maintenance phase. For impacts to federally protected wetlands and other sensitive natural communities, refer to Section 3.4, Biological Resources.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, construction and operation of approximately 7 miles of the new 70 kV power line segment, and reconductoring of approximately 3 miles of an existing 70 kV power line. New permanent components for the new 70 kV power line segment include lattice steel towers (LSTs), tubular steel poles (TSP), light-duty steel (LDSPs), wood poles, and access roads. Permanent changes associated with the reconductoring segment of the project include removal of existing poles and replacement of existing poles with TSPs, LDSPs, and wood poles.

In addition to the new permanent facilities, temporary workspaces and disturbances will be required to facilitate construction of the project. The temporary footprint of the project includes disturbances associated with particular construction components, including but not limited to open-cut trenching for installation of the telecommunications line, the use of temporary work areas, the installation of crossing guard structures, the use of staging areas, the construction of temporary access roads, and the use of helicopter landing zones.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to hydrology and water quality are anticipated at this time as a result of this future project.

Impact Hydro-a: Violate any water quality standards or waste discharge requirements? (*Less than Significant*)

Construction

The project will not violate any water quality standards or waste discharge requirements. Pollutants are transported from point and non-point sources to receiving waters by contaminated surface flows or groundwater. Discharge of pollutants to drainages, surface waters, or wetlands would be a significant impact if the polluted runoff violated any water quality standards.

The project will include ground disturbance over 1 acre and therefore a project-specific SWPPP will be developed and implemented for compliance with the federal CWA, and for coverage under the NPDES Construction General Permit (CGP). Based on site-specific soil characteristics, slope, and the construction schedule, the SWPPP will address potential water quality risks in compliance with existing regulations. The SWPPP will specify measures for each activity that has potential to degrade surrounding water quality by limiting erosion and sedimentation from construction activities, identifying spill prevention procedures for equipment containing hazardous materials, and measures to minimize pollution of stormwater runoff through containment of any released materials before materials can enter stormwater or receiving waters.

A Hazardous Materials Business Plan (HMBP) will be prepared in accordance with the California Hazardous Waste Control Act (Health and Safety Code Chapters 6.5–6.98), and will be filed with the State of California Environmental Reporting System, describing materials storage, management, and disposal protocols during operations. During construction, project proponents will implement standard hazardous substance control and emergency response procedures as needed to train workers, identify potential hazards, protocols for spill prevention and response, and apply appropriate control methods.

Estrella Substation

As described in Section 3.9.3.3, Surface Waters, the nearest CCRWQCB 303(d)-listed water body is Salinas River, located approximately 4.5 miles west of Estrella Substation. Potential water quality impairments to Salinas River would be a result of two pollutant categories: salinity and pH. Sources of Salinas River limiting pollutants have not been identified by CCRWQCB. Most commonly, salinity pollution can be caused by excessive runoff or saltwater intrusion into groundwater as a result of aquifer depletion. Runoff of pollutants, such as organic nutrients and industrial chemicals, can alter the pH of a river. The use and protection of groundwater, as well as the potential to encounter groundwater during excavation and construction, is further discussed in Impact Hydro-b. Potential for the project to create additional water runoff is further discussed in Impact Hydro-e.

Discharge of construction wastewater could potentially violate water quality standards or waste discharge requirements, and contribute further pollution to Section 303(d) impaired waters, such as Upper Salinas River. There are no jurisdictional waters located at the Estrella Substation project area. However, four unnamed swales are located near the project area and could be affected by stormwater run-off or waste discharge. Removal of existing grape vines and grading will be required to establish a level pad for Estrella Substation. Following vegetation clearing and grading, excavation will occur for equipment foundations and concrete will be poured to facilitate installation of electrical equipment. All of these activities have the potential to contribute pollutants to off-site drainages (particularly turbidity and high-pH washwater) that can affect water quality and may violate water quality standards if left uncontrolled. However, substation construction will not violate any water quality standards or waste discharge requirements because the project is required by law to prepare and implement a SWPPP to reduce erosion and therefore reduce the amount of sediment or soil contained in runoff from the site. As a result, impacts will be less than significant.

Furthermore, the project proponents will implement APM GEN-1 (WEAP Training Program) and APM HYDRO-1 (Avoidance of Sensitive Aquatic Features) to develop a worker environmental awareness program and identify and avoid sensitive aquatic features during construction. Implementation of APM GEN-1 and APM HYDRO-1 will further reduce already less-than-significant impacts.

The project will utilize construction equipment that uses or contains hazardous materials including, but not limited to, diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, and lubricating grease. The potential impact of accidental releases of hazardous materials that are used during construction, such as petroleum-based equipment fluids, are further discussed in Section 3.8, Hazards and Hazardous Materials. The discharge of pollutants from spills, leaks, or other accidental releases could be transported in stormwater to receiving surface waters or infiltrate into soil and potential groundwater resources. Discharge of hazardous materials in stormwater, through subsurface flow, or directly into water resources has the potential to impact receiving surface and groundwater resources through impairments of beneficial uses and exceedance of water quality objectives (e.g., inorganic chemicals, oil and grease, toxicity, and toxic pollutants). However, the project proponents are required to develop and implement an HMBP that includes Spill Prevention, Control, and Countermeasure (SPCC) for containment and clean-up of spills of hazardous materials that will prevent untreated spills of hazardous materials from entering any waterbody. The project proponents will also implement SWPPP requirements to limit on-site vehicle and equipment fueling, proper sanitary/septic waste management, among other BMPs. Therefore, impacts related to hazardous materials affecting water quality will be less than significant. Implementation of APM HAZ-1 ensures that general hazardous substance control and emergency response measures are followed, further reducing already less-than-significant impacts.

No dewatering is anticipated during construction of the substation, as the project boundary area does not contain any existing water feature, and groundwater is reported by the adjacent property owner to occur at approximately 340 feet below ground surface. As a result, no impacts related to dewatering will occur.

The potential for construction of Estrella Substation to violate water quality standards or waste discharge requirements, through excess erosion, hazardous pollutant discharge, or contaminated stormwater runoff that might impact groundwater or surface water quality in the region, will be less than significant. Implementation of the above-referenced plans and APMs will further reduce these already less-than-significant impacts.

Power Line Route

Salinas River, located less than 500 feet west of the reconductoring segment, is a 303(d)-listed water body for two pollutant categories: salinity and pH. Salinity pollution can be caused by excessive runoff or saltwater intrusion into groundwater as a result of aquifer depletion. Runoff of pollutants, such as organic nutrients and industrial chemicals, can alter the pH of a river. The use and protection of groundwater, as well as the potential to encounter groundwater during excavation and construction, is further discussed in Impact Hydro-b. The potential for the project to create additional water runoff is further discussed in Impact Hydro-e.

The power line route is designed to avoid jurisdictional wetlands and waters and no work areas are located within sensitive aquatic areas. However, discharge of runoff water from construction activities such as dust control or concrete mixing, or accidental release of hazardous materials along the new 70 kV power line segment or reconductoring segment could potentially violate water quality standards, and contribute further pollution to Section 303(d) impaired waters, such as Salinas River. As required by the Construction General Permit, the project proponents will implement SWPPP BMPs to avoid construction-related runoff from construction sites. As a result, impacts related to the discharge of polluted runoff from power line construction will be less than significant.

Construction activities for the power line route will include ground disturbance and exposure of surfaces, increasing the potential for erosion and downstream sedimentation. Vegetation may need to be cleared or mowed to improve existing access roads or establish overland access routes, work areas, pull sites, or landing zones for construction. In some instances, minor grading also may be needed to improve structure work areas or existing access roads. Eroded materials transported in stormwater have the potential to affect receiving surface waters through impairment of beneficial uses and exceedance of water quality objectives (e.g., increased levels of total dissolved solids [TDS], turbidity, nutrients, suspended solids, or other constituents or parameters). Implementation of BMPs defined in the project-specific SWPPP will reduce erosion and therefore the amount of sediment or soil contained in runoff from the site. As a result, impacts from power line construction will be less than significant.

The project proponents will implement APM GEN-1 (WEAP Training Program) and APM HYDRO-1 (Avoidance of Sensitive Aquatic Features) during construction. Implementation of APM GEN-1 and APM HYDRO-1 will further reduce already less-than-significant impacts.

Construction of the new 70 kV power line segment and reconductoring segment will require equipment and involve activities that use or contain hazardous materials, including, but not limited to, equipment fluids such as diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, and lubricating grease, as well as cement slurry, which have the potential to be accidentally released. This potential impact and associated APMs are discussed in Section 3.8, Hazards and Hazardous Materials. The discharge of hazardous materials in stormwater, through subsurface flow, or directly into water resources has the potential to impact receiving surface and groundwater resources through impairments of beneficial uses and exceedance of water quality objectives (e.g., inorganic chemicals, oil and grease, toxicity, and toxic pollutants). The project proponents are required to develop and implement a HMBP that includes containment and clean-up of spills of hazardous materials that will prevent untreated spill of hazardous materials from entering any waterbody. The project proponents will implement SWPPP BMPs to limit on-site vehicle and equipment fueling, and ensure proper sanitary/septic waste management to limit on-site vehicle and equipment fueling and properly manage sanitary/septic waste. Therefore, impacts related to hazardous materials affecting water quality will be less than significant.

The project proponents will implement APM HAZ-1 (Hazardous Substance Control and Emergency Response), which establishes general hazardous substance control and emergency response measures. Implementation of this APM will further reduce already less-than-significant impacts.

The potential for the construction of the power line to violate water quality standards or waste discharge requirements, through excess erosion, hazardous pollutant discharge, or contaminated stormwater runoff that might impact groundwater or surface water quality in the region, will be less than significant. Implementation of the above-referenced plans and APMs will further reduce already less-than-significant impacts.

Operation and Maintenance

Estrella Substation

During operation and maintenance activities, water quality could potentially be impacted through inadvertent spills or discharges from new equipment at Estrella Substation, which could wash into nearby drainages or infiltrate soil to the water table. The substation will include containment basins to capture and contain any leaking mineral oil that may be released during a malfunction. This mineral oil, which is non-hazardous, will be contained and disposed of according to the required HMBP, resulting in less-than-significant impacts. Implementation of APM HYDRO-1 (Avoidance of Sensitive Aquatic Features) will further reduce already less-than-significant impacts.

Estrella Substation will also be designed to demonstrate compliance with CGP Post-Construction Standards, which include BMPs to reduce stormwater runoff. Operations and maintenance activities may include use of new pollutant sources including, but not limited to, oils, paints, and solvents used for routine maintenance. All materials will be applied, stored, and disposed of in a manner consistent with manufacturer recommendations and in accordance with applicable regulations. As a result, an accidental release during operation and/or maintenance of the project is unlikely to occur and impacts will be less than significant. Implementation of the HMBP and APM HYDRO-1 will further reduce already less-than-significant impacts.

Power Line Route

During operation and maintenance activities, water quality could potentially be impacted through inadvertent spills or discharges from equipment used during power line maintenance, which could wash into nearby drainages or infiltrate soil to the water table. Operations and maintenance activities may include use of new pollutant sources used for routine maintenance. However, all materials will be applied, stored, and disposed of in a manner consistent with manufacturer recommendations and in accordance with applicable regulations, making an accidental release during operation and/or maintenance of the power line route unlikely to occur. Further, maintenance will generally occur over a few days each year and will be limited to specific segments of the power line or particular structures. As a result, impacts related to hazardous materials affecting water quality will be less than significant. Further, implementation of APM HYDRO-1 (Avoidance of Sensitive Aquatic Features) will further reduce already less-than-significant impacts.

Impact Hydro-b: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (*Less than Significant*)

Construction

Based on the depth of excavation necessary to perform work, geotechnical studies performed for Estrella Substation and the power line route, and well records cited in Section 3.9.3.4, Groundwater, it is highly unlikely that excavation and grading activities will encounter groundwater. The project will require development of a SWPPP to comply with the CGP that will include contingency BMPs, such as dewatering and pumping protocols, should groundwater be encountered. Consequently, the following analysis focuses on the depletion of groundwater supplies as a result of water consumption or barriers to water infiltration.

Water required for construction is available from multiple sources, including a private well, City municipal water sources, and recycled water from the City of Paso Robles Wastewater Treatment Plant. Local wells draw from the Paso Robles groundwater basin and, in 2015, approximately 40% of the Paso Robles municipal water supply was sourced from basin wells (City of El Paso de Robles 2016). Use of well water or municipal water has the potential to contribute to groundwater supply depletion should the use result in a net deficit of basin yield. The project proponents will secure the appropriate approvals and will enter into agreements with land owners as appropriate.

Construction of Estrella Substation and the power line route will require approximately 32 acre-feet of water for concrete mixing and dust control, which is approximately 0.03% of the annual yield of the Paso Robles groundwater subbasin (97,700 afy). Furthermore, approximately 15 acres of irrigated row crops (vineyards) will be removed from permanent production. Water needs for vineyard agriculture vary due to climate, but can be estimated to be between 0.9 to 1.5 afy per acre (300,000 to 500,000 gallons per acre). Thus, the existing annual water use for vineyard agriculture that will be permanently reduced can be estimated to be between 14.4 to 24 afy. Over the lifetime of the project (30 years), this will result in a water savings of 576 to 960 acre-feet. As a result, there will be an overall reduction in the use of groundwater over time and the project will result in a net benefit to groundwater levels.

Estrella Substation

Estrella Substation is not located within a water district or sewer service area. During construction, water may be drawn from a well located adjacent to the western edge of the substation site or may be trucked in from local sources. As described above, construction of the project will require a temporary water consumption of approximately 32 acre-feet of water, which is equivalent to approximately 0.03% of the annual yield of the Paso Robles groundwater subbasin. Construction of the substation will result in permanently removing approximately 15 acres of crops that would otherwise consume groundwater resources. As a result, this impact is less than significant.

The amount of impervious surface that will be constructed for Estrella Substation is approximately 2 acres. Estrella Substation is not located within a Stormwater Management Zone as designated in CCRWQCB Central Coast Post Construction Requirements. As described in Section 2.6.1.1, Project Components, 230 kV Substation, the substation grading and drainage will be designed in accordance with the SPCC and industry best practices, including County and California Stormwater General Permit guidelines, such as design considerations to address impervious surfaces.

Both the 70 kV and 230 kV substations will be graded away from each other, with the high spot in the middle of the two substations, and designed to direct water through containment basins and weir systems to settle and separate any water contaminants. Manual operation of release valves will control the volume and velocity of water leaving the substation. Upon exiting the station, stormwater will flow from outfalls on the south side of the substation, generally flowing toward Union Road and the associated roadside ditch. Stormwater from upgrade agricultural lands will continue to flow toward Union Road, but will be directed around the substation perimeter with rock-lined drainage ditches instead of overland sheetflow. Flows into the associated roadside ditches will be allowed to dissipate and infiltrate into the ground similar to existing conditions.

As a result, the potential for construction of Estrella Substation to deplete groundwater supplies or substantially reduce groundwater recharge will be less than significant.

Power Line Route

Portions of the new 70 kV power line segment fall within the Paso Robles municipal water service area, but the majority of the route is not located within a water district or sewer service area. During construction, water may be trucked in from local sources such as Paso Robles municipal water sourced from the city's fire hydrant system, or recycled water from the City of Paso Robles Wastewater Treatment Plant. The project proponents may secure the appropriate approvals and could enter into agreements with land owners as appropriate.

As described above, construction will require a temporary water consumption of approximately 32 acre-feet of water, which is equivalent to about 0.03% of the annual yield of the Paso Robles groundwater subbasin. As a result, the potential for construction of the new 70 kV power line segment to deplete groundwater supplies or substantially reduce groundwater recharge will be less than significant.

Operation and Maintenance

Estrella Substation

Estrella Substation will not require water for daily operations and therefore will not substantially inhibit implementation of existing groundwater management plans and goals in the area. In general, maintenance will involve equipment inspections that do not require soil disturbance or construction of additional facilities. As a result, no substantial use of groundwater will occur.

As described above, the substation grading and drainage will be designed in accordance with stormwater requirements. Flows into Union Road will be allowed to dissipate and infiltrate into the ground similar to existing conditions. Thus, impacts will be less than significant.

Power Line Route

No groundwater will be used for the operation and maintenance of the power line route. In general, inspections will occur annually on structures and associated equipment under existing maintenance programs and little to no soil disturbance or concrete mixing will be necessary. Consequently, there will be no impact associated with groundwater depletion during operation and maintenance of the power line route.

The power line route includes new pole and tower structures with foundations up to approximately 5 feet in diameter. The total new impervious surfaces in operation will have a minor footprint and will not inhibit groundwater recharge and supply in the project area. As a result, there will be no impact on groundwater supplies or groundwater recharge from the addition of impervious surfaces.

Hydro-c: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (*Less than Significant*)

Construction

Estrella Substation

Topography in the vicinity of Estrella Substation is primarily composed of rolling hills interspersed with small creeks and swales. The substation site itself includes a low hill in the southwest with a rift in the northeast. Site drainage is to the south toward Union Road and eventually empties into a tributary of Huerhuero Creek. The greater vicinity has an overall northwest slope that follows the parallel the Huerhuero Creek and Dry Canyon corridors. Based on preliminary grading design, earthwork activities for Estrella Substation are anticipated to result in approximately 50,000 cubic yards cut and fill, balanced on-site. To avoid concentrating stormwater flows, the 230 kV and 70 kV substations will be graded away from each other, using a 1.5–2% grade, with the high spot in the middle of the two substations. On-site stormwater flows and drainage patterns will continue to flow toward Union Road and the roadside drainage ditch.

To comply with CGP Post-Construction Standards, design of Estrella Substation will be guided by required BMPs to reduce runoff and balance runoff to pre-project conditions. Drainage on-site will be modified to consolidate stormwater for eventual outflow towards Union Road. Stormwater will settle in a secondary containment basin in the 230 kV substation and in a concrete skimmer and weir device in the 70 kV substation.

The 230 kV substation will be constructed with a secondary containment basin designed to accommodate transformer oil volume plus precipitation from a 25-year, 24-hour storm event. Stormwater collected will be visually inspected, and if no contaminants are identified, then manually released into the rip-rap lined detention basin, where it will percolate naturally into the groundwater basin. The 230 kV substation also will contain two outfalls located on the northeasterly side of the substation. These outfalls will collect stormwater from the substation surface and move it toward Union Road and the associated roadside ditch, similar to existing drainage patterns. The two outfall locations will be lined with rip rap to disperse water, aid in water percolation and prevent erosion.

The 70 kV substation will be constructed with a concrete skimmer and weir device to settle and collect sediment and serve as a secondary mineral oil containment. The weir will be designed to allow water to seep out from underneath the weir using two manual valves. Stormwater from upgrade agricultural lands will continue to flow toward Union Road, but will be directed around the substation perimeter with rock-lined drainage ditches instead of overland sheetflow. The velocity of stormwater generated on-site will be controlled through manual operation of release valves. Therefore, drainage features on-site will minimize off-site erosion and sedimentation, and impacts related to altering existing drainage will be less than significant.

Ground disturbance will occur during construction, primarily as a result of grading and vegetation removal. Implementation of SWPPP BMPs to minimize ground disturbance and avoid soil-disturbing activities during rain events and stabilize disturbed areas will minimize erosion and siltation of any exposed surfaces during the construction period and further reduce this potential impact. The project will not result in substantial erosion or siltation, either on-site or off-site; therefore, impacts related to altering existing drainages during construction of Estrella Substation will be less than significant.

Power Line Route

Construction of the power line route will not require the creation of impervious surfaces or other modification of surface conditions that could alter the direction of surface water runoff flows. Minor temporary grading may be needed in select locations to improve project access or establish work areas to accommodate equipment and pole placement; however, this grading will be limited in scope and will not substantially alter site drainage. Implementation of a SWPPP will require stabilization of disturbed areas and further reduce this potential impact. Therefore, impacts related to altering existing drainages during construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

Estrella Substation has been sited to avoid existing water features and designed to minimize impacts on waterways, substantial alteration of drainage patterns, or alterations to the natural course of streams or rivers. Estrella Substation will also be designed to demonstrate compliance with CGP Post-Construction Standards that include BMPs to reduce runoff and balance runoff to pre-project conditions. Project operation and maintenance will not involve new grading or further alteration of the site's drainage pattern.

Stormwater will be directed through on-site containment basin and weir systems and manually released from the substation area at outfalls toward the roadside ditch adjacent to Union Road. Stormwater from agricultural lands upslope will continue to flow toward Union Road, but will be directed around the substation perimeter with rock-lined drainage ditches instead of overland sheetflow. The velocity of stormwater generated on-site will be controlled through manual operation of release valves. Operation and maintenance will not alter drainage such that erosion or siltation could occur. As a result, impacts related to altering existing drainages will be less than significant.

Power Line Route

The new 70 kV power line segment and reconductoring segment have been designed to avoid direct impacts and minimize indirect impacts on waterways, as well as avoid substantial alteration of drainage patterns or alteration of the course of a stream or river. Routine inspections will be conducted on an annual basis or as needed under emergency conditions, minimizing the amount of foot and vehicle traffic on site. As a result, no impact will occur.

Impact Hydro-d: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (*Less than Significant*)

Construction

Estrella Substation

Based on preliminary grading design, earthwork activities for Estrella Substation are anticipated to result in approximately 50,000 cubic yards cut and fill, which will be balanced on-site. On-site drainage will be modified such that flows will be consolidated into specified drainage locations for eventual outflow toward Union Road. Stormwater flows in the area are relatively infrequent and will remain largely unchanged. Stormwater from upgrade agricultural lands will continue to flow toward Union Road, but will be directed around the substation perimeter with rock-lined drainage ditches instead of overland sheetflow. The velocity of stormwater generated on-site and around the site perimeter will be attenuated by the manual operation of release valves and rock-lined drainage ditches. Flow calculations were completed for the existing roadside ditch along Union Road and it was determined that the ditch is capable of sufficiently accommodating flows from a 25-year storm event at Estrella Substation. During such a rain event, it was estimated that rainfall of 1.6 inches per hour would result in a flow towards the drainage ditch of approximately 9 cubic feet per second, resulting in a depth of flow of approximately 0.5 feet, well below the ditch depth of 1 foot. As a result, impacts related to substantially increasing surface runoff at the substation site will be less than significant.

Further, implementation of a SWPPP will require appropriate erosion and sediment controls such as straw wattles or silt fencing to control the flow of any incidental surface runoff. Estrella Substation will also be designed to demonstrate compliance with CGP Post-Construction Standards that include balancing pre- and post-stormwater flows. This requires that the substation's post-construction run-off match the pre-construction run-off and not only reduces the risk of impact to off-site receiving water channel morphology but also provides some protection of water quality. As a result, the project will not substantially increase the rate or amount of surface water runoff in a manner that will result in flooding, either on-site or off-site and impacts from construction will be less than significant.

Power Line Route

The new 70 kV power line segment and reconductoring segment do not include construction of substantial impervious surfaces or other modification of surface conditions that could increase surface water runoff rates. In addition, construction of the power line will not require the substantial modification of upland areas to the extent that drainage patterns will be altered or on- or off-site flooding could occur. Minor temporary grading may be needed in select locations to improve project access or establish work areas to accommodate equipment and pole placement; however, this grading will be limited in scope and will not substantially alter site drainage or result in flooding. As a result, no impacts will occur.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will not involve new construction that will alter the drainage patterns of the site. The substation will be designed to balance pre- and post-stormwater flows utilizing the existing roadside drainage ditch along Union Road and to prevent any off site stormwater flow onto the substation site. It has been determined that the roadside ditch has sufficient capacity to handle stormwater flows that might occur during operation and maintenance of the substation. Flow calculations were completed for a 25-year storm event at Estrella Substation. During such an event, it was estimated that rainfall of 1.6 inches per hour would result in a flow towards the drainage ditch of approximately 9 cubic feet per second, resulting in a depth of flow of approximately 0.5 feet, well below the drainage ditch depth of 1 foot. As a result, impacts related to substantially increasing surface runoff at the substation site will be less than significant.

During final grading of the substation site, a crown will be created along the fenceline separating the 70 kV and 230 kV substations. This crown, or slope will ensure that stormwater does not flow from one substation site onto another. The 230 kV substation site will be graded with a gradual slope of 1.5–2% towards the northeast corner of the substation property. The 70 kV substation site will also be graded with a gradual slope of approximately 2% towards the southeast portion of the substation property.

Stormwater at the 230 kV substation site will be managed using two methods: 1) Two outfalls located on the northeasterly side of the substation will collect stormwater from the substation surface and move it toward Union Road and the associated roadside ditches, similar to existing drainage patterns. The two outfall locations will be lined with rip rap to disperse water, aid in water percolation and prevent erosion. 2) Stormwater will also be allowed to collect in the transformer containment basin and then released after storm events using a manual valve. This water will then drain from the containment basin, to the two outfall locations and be allowed to infiltrate towards the roadside ditches, similar to existing conditions. Since the containment basin will be lined with rock, small amounts of water within the basin will be allowed to percolate underground.

For the 70 kV substation site, stormwater will be collected in a concrete weir located on the southern edge of the substation property. The weir will be designed to allow water to seep out from underneath the weir using two manual valves. Stormwater from upgrade agricultural lands will continue to flow toward Union Road, but will be directed around the substation perimeter with rock-lined drainage ditches instead of overland sheetflow. The velocity of stormwater generated on-site will be controlled through manual operation of release valves.

As a result, operation and maintenance activities at the substation will not alter drainage patterns or cause flooding and impacts will be less than significant.

Power Line Route

The new 70 kV power line segment and reconductoring segment have been designed to avoid direct impacts and minimize indirect impacts on waterways, as well as avoid substantial alteration of drainage patterns or alteration of the course of a stream or river. Operation and maintenance of the power line will not involve activities that will alter the drainage patterns of the area. Operation and maintenance activities will not increase surface run off or cause flooding. Therefore, no impact will occur.

Hydro-e: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (*Less than Significant*)

Construction

Estrella Substation

Estrella Substation is located within rural agricultural parcels where municipal or otherwise developed stormwater collection systems are not established. The stormwater conveyance systems that are present generally consist of agricultural ditches along field roads and other local roads.

Excessive use of water or poorly controlled work areas can cause excess water to runoff the site. Construction of Estrella Substation will require the use of water for dust control (as described in APM AIR-3), concrete mixing, and other construction activities. Water will be used conservatively and limited to the minimum needed such that runoff into off-site streams and swales will be minimized. Therefore, impacts will be less than significant. SWPPP BMPs will further reduce these already less-than-significant impacts.

Construction of new impervious surfaces can inhibit infiltration of water into the ground and accelerate runoff to ditches and streams. The amount of impervious surface that will be developed for Estrella Substation is approximately 2 acres. Estrella Substation will be designed to demonstrate compliance with CGP Post-Construction Standards that include BMPs to reduce runoff and to balance runoff flows with pre-project conditions. As described in Impact Hydro-b, the substation will be designed to direct stormwater though containment basins or a weir system, isolate water pollutants, and control outflows. Outfalls will release water on the southeasterly side of the substation toward Union Road and associated roadside ditches. Given climactic conditions indicating an average of 15 inches of rain per year, the existing roadside ditch along Union Road has sufficient capacity for flows from substation outfalls. Therefore, the project will not exceed the capacity of existing stormwater systems and the impact will be less than significant. SWPPP BMPs will further reduce these already less-than-significant impacts.

Power Line Route

Much of the 70 kV power line segment is located within rural or undeveloped parcels where municipal or otherwise developed stormwater collection systems are not established. The stormwater conveyance systems that are present generally consist of open stormwater ditches along highways and other local roads. Portions of the new 70 kV power line and reconductoring segments fall within urban residential land uses in Paso Robles where a municipal stormwater system is present.

The 70 kV power line and reconductoring segments involve construction of pole and tower structures that will not create large impervious surfaces. Construction within the power line route will require the use of water for dust control (as described in APM AIR-3), concrete mixing, and other construction activities. Water will be used conservatively and construction of the power line will not contribute excess runoff that will exceed the capacity of existing stormwater systems. This impact will be less than significant. Implementation of SWPPP BMPs will further reduce these already less-than-significant impacts.

Operation and Maintenance

Estrella Substation

Operation of Estrella Substation will require routine inspections on a monthly and annual basis. Substation activities during operation will not involve new water discharge greater than what will otherwise occur from storm events. The substation will be designed to balance runoff from impervious surfaces with pre-project conditions and incidental stormwater flows will be directed through containment basin and weir systems. Water release will be controlled at outfalls on the southeast side of the substation and flows will be balanced to existing runoff conditions. Calculations have determined that the existing roadside ditch adjacent Union Road has sufficient capacity for substation runoff water and flows into this roadside ditch will be allowed to infiltrate similar to existing conditions. Therefore, no impact will occur.

Power Line Route

Operation and maintenance of the 70 kV power line segment will require routine inspections on an annual basis. Operation and maintenance activities will not involve the construction of new impervious surfaces or the generation of additional stormwater or runoff. Therefore, no impact will occur.

Hydro-f: Otherwise substantially degrade water quality? (*No Impact*)

No additional impacts to water quality beyond those previously described are anticipated. Therefore, the project will not substantially degrade water quality and no additional impacts will occur.

Hydro-g: Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (*No Impact*)

The project does not involve the construction, operation, or maintenance of housing. No impact will occur.

Hydro-h: Place within a 100-year flood hazard area structures that would impede or redirect flood flows? (*No Impact*)

Construction

Estrella Substation

Estrella Substation is not located within a 100-year flood hazard area nor will construction, operations, or maintenance result in the impediment or redirection of floodwaters. No impact will occur.

Power Line Route

A portion of the 70 kV power line segment between the east bank of Huerhuero Creek and the Paso Robles Sports Club is within a 100-year flood zone as shown on Figure 3.9-2, Flood Zones. The new 70 kV power line segment will consist of pole structures that will not result in the impediment or redirection of floodwaters within a 100-year flood hazard area. No tower foundations will be constructed in the 100-year flood hazard zone. As a result, no impact will occur.

Operation and Maintenance

Estrella Substation

Estrella Substation is not located within a 100-year flood hazard area nor will operation and maintenance result in the impediment or redirection of floodwaters. No impact will occur.

Power Line Route

Operation and maintenance activities will not involve the construction of new structures that could contribute to the impediment or redirection of floodwaters. As a result, no impact will occur.

Hydro-i: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (*No Impact*)

Construction

Estrella Substation

Estrella Substation is not located in a 100-year or 500-year flood zone or within any dam failure inundation hazard area. Thus no people or structures will be exposed to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. As a result, no impact will occur.

Power Line Route

A portion of the 70 kV power line segment is located in a 100-year flood zone, and portions of the reconductoring segment are located in a 500-year flood zone and are near a dam failure inundation hazard area. However, construction of power line structures will not be located near a dam or levee, or change the volume or direction of flood flows. The power line will be designed in accordance with applicable engineering standards for FEMA flood zones and other terrain considerations, as described in Section 3.6, Geology and Soils. No people or structures will be exposed to a significant new risk of loss, injury, or death involving flooding or the failure of a levee or dam. As a result, no impact will occur.

Operation and Maintenance

Estrella Substation

Estrella Substation is not located in a flood zone or dam failure inundation hazard area. As a result, no impact will occur.

Power Line Route

A portion of the 70 kV power line segment is located in a 100-year flood zone, and portions of the reconductoring segment are located in a 500-year flood zone and are near a dam failure inundation hazard area. However, operation and maintenance will not involve construction of new structures that would increase flooding risks within flood zones or near levees or dams. No people or structures will be exposed to a significant new risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. As a result, no impact will occur.

Hydro-j: Inundation by seiche, tsunami, or mudflow? (*Less than Significant*)

Estrella Substation

Estrella Substation is not located near any bodies of water subject to tsunami or seiche, nor is the substation site susceptible to mudflows. As a result, construction and operation and maintenance of the substation will not expose people or structures to hazards associated with tsunami, seiche, or mudslides. As a result, no impacts will occur.

Power Line Route

The power line is not located near any bodies of water subject to tsunami or seiche. While the new 70 kV power line segment intersects Huerhuero Creek and a number of unnamed drainages, these are not subject to inundation from tsunami and seiches because of their small size, limited flows, and non-confined nature. As such, construction and operation and maintenance of the power line will not expose people or structures to hazards associated with tsunami and seiches.

Portions of the existing power line of the reconductoring segment are located on steep slopes near Salinas River. However, the project area is considered arid with an average rainfall of 15 inches per year. Further, most waterways near the power line route are dry for most of the year, and are small in size. Because the reconductoring segment entails replacement of poles and reconductoring of an existing power line, the already low potential for inundation by mudflow will not change from existing conditions as a result of the project. Poles and towers will be installed at depths of 13 to 18 feet below ground surface and will be able to withstand an unlikely mudflow event.

Power line construction and operation and maintenance will not interfere with or affect existing drainages and the project will not affect the susceptibility of the project area to increased risk of inundation resulting from seiche, tsunami, or mudflow. Therefore, impacts will be less than significant.

3.9.5 References

California Department of Conservation (DOC). 2009. Tsunami Inundation Maps. Online: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanLuisObispo. Accessed on July 2016.

____. 2010. Hydrologic Regions. Online: http://www.conservation.ca.gov/dlrp/watershedportal/InformationResources/Documents/WS_huc10_regions8_26_10.pdf. Accessed July 2016.

California Department of Water Resources (DWR). 2003. *California's Groundwater Update 2003, Central Coast Hydrologic Region*. California's Groundwater Bulletin No. 118. Online: http://www.water.ca.gov/pubs/groundwater/bulletin_118/california's_groundwater__bulletin_118_-_update_2003_/bulletin118_3-cc.pdf. Accessed July 2016.

____. 2014a. California Statewide Groundwater Elevation Monitoring, Groundwater Basin Prioritization. Online http://www.water.ca.gov/groundwater/casgem/basin_prioritization.cfm. Accessed July 2016.

____. 2014b. Summary of Recent, Historical, and Estimated Potential for Future Land Subsidence in California. Online: http://www.water.ca.gov/groundwater/docs/Summary_of_Recent_Historical_Potential_Subsidence_in_CA_Final_with_Appendix.pdf. Accessed July 2016.

____. 2015. Water Data Library. Online: http://www.water.ca.gov/waterdatalibrary. Accessed December 11, 2015.

____. 2016. Groundwater Information Center – The GIC Interactive Map. Online: https://gis.water.ca.gov/app/gicima/. Accessed July 2016.

California Interagency Watershed Mapping Committee. 2004. California Interagency Watershed Map of 1999 (Calwater 2.2, updated May 2004, "calw221"). Online: http://frap.fire.ca.gov/data/frapgisdata-sw-calwater_download.php. Accessed July 2016

Central Coast Regional Water Quality Control Board (CCRWQCB). 2016. Water Quality Control Plan for the Central Coast Basin, Table 2-1. Identified Uses of Inland Surface Waters. Online: http://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/current_version/2016_basin_plan_r3_complete.pdf. Accessed October 20, 2016.

City of El Paso De Robles. 2003a. *City of El Paso De Robles General Plan, Conservation Element*. Adopted December 16, 2003. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/ConservationElement.pdf. Accessed July 2016.

____. 2003b. *City of El Paso De Robles General Plan, Safety Element*. Adopted December 16, 2003. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/SafetyElement.pdf. Accessed July 2016.

____. 2016. *Final City of Paso Robles 2015 Urban Water Management Plan*. Online: http://www.prcity.com/government/departments/publicworks/water/pdf/UWMP_2015-Final.pdf. Accessed July 2016.

County of San Luis Obispo. 1999. *County of San Luis Obispo General Plan, Safety Element*. As amended through December 3, 2013. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf. Accessed July 2016.

____. 2005. *Water Years 2001–02 and 2002–03 Hydrologic Report*. Online: http://www.slocountywater.org/site/Water%20Resources/Reports/pdf/Hydrologic%20Report%202002.pdf. Accessed July 2016.

____. 2010. *County of San Luis Obispo General Plan, Conservation and Open Space Element*. May 2010. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed July 2016.

____. 2011a. *Paso Robles Groundwater Basin Management Plan*. Online: http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/pdf/201103%20-%20Paso%20Basin%20Final%20GMP.pdf. Accessed July 2016.

____. 2011b. *Resource Capacity Study – Water Supply in the Paso Robles Groundwater Basin*. Online: http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/rcs.pdf. Accessed July 2016.

________. Department of Public Works and Transportation. 2014. *2015 Public Improvement Standards. August Draft.* August 2014. Online: http://www.slocounty.ca.gov/Assets/PW/ImprovementPlans/2014+SLOCo+PW+Stds+DRAFT.pdf. Accessed: July 2016.

____. 2016. County Drought Updates. Online: http://www.slocounty.ca.gov/admin/Drought_Update/County_Drought_Updates.htm. Accessed July 2016.

County of San Luis Obispo Flood Control and Water Conservation District. 2012. *San Luis Obispo County Master Water Report*. Online: http://www.slocountywater.org/site/Frequent%20Downloads/Master%20Water%20Plan/pdf/Vol_I_MWR%20final.pdf. Accessed July 2016.

Federal Emergency Management Agency (FEMA). 2016. FEMA Flood Map Service Center. Online: https://msc.fema.gov/portal. Accessed July 2016

National Atmospheric and Oceanic Administration (NOAA). 2016. National Weather Service Forecast Office-NOWData – NOAA Online Weather Data. Monthly Climate Normals (1981-2010)-Paso Robles. Online: http://www.ncdc.noaa.gov/cdo-web/datatools/normals. Accessed June 2016.

San Francisco Estuary Institute. 2016. EcoAtlas – Central Coast. Online: http://www.ecoatlas.org/regions/ecoregion/central-coast. Accessed July 2016.

State Water Resources Control Board (SWRCB). 2016. Impaired Waterbodies. Online: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml. Accessed July 2016.

Upper Salinas Las Tablas Resource Conservation District (US-LT RCD). 2012. Huer Huero Creek Watershed. Online: http://www.us-ltrcd.org/wp-content/uploads/2012/08/Huer-Huero-Huer-Huero-Creek-Watershed.pdf. Accessed July 2016.

U.S. Fish and Wildlife Service (USFWS). 2016. National Wetlands Inventory, Geographic Information Systems (GIS) Layers. Online: http://atlas.ca.gov/. Accessed April 2016.

U.S. Geological Survey (USGS). 2016. National Hydrography Dataset. Online: http://nhd.usgs.gov/data.html. Accessed June 2016.

Water Research Center. 2014. pH in the Environment. Online: http://www.water-research.net/index.php/ph-in-the-environment. Accessed July 2016.

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3.10 LAND USE AND PLANNING

3.10.1 Introduction

This section describes existing land use in the vicinity of the project and assesses potential project-related impacts on land use and planning, including an analysis of project compatibility with land use and/or habitat plans. The analysis concludes that no impacts related to land use and planning will occur as a result of construction, operation, and maintenance of the project and no Applicant Proposed Measures (APMs) are needed. The project's potential effects on land use and planning were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.10-1, CEQA Checklist for Land Use and Planning, and discussed in more detail in Section 3.10.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.10-1. CEQA Checklist for Land Use and Planning

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING ***Would the project:***				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.10.2 Regulatory Background and Methodology

3.10.2.1 Regulatory Background

Federal

No federal laws or regulations related to land use and planning are applicable to the project. The project is located near the Paso Robles Municipal Airport. As such, regulations pertaining to the Federal Aviation Administration are presented in Section 3.8, Hazards and Hazardous Materials. A discussion of the Paso Robles Municipal Airport Land Use Plan is provided in Section 3.10.3.3, Local Plans and Policies.

State

California Public Utilities Commission General Order 131-D

The California Public Utilities Commission (CPUC) has exclusive jurisdiction over the design, siting, installation, operation, maintenance, and repair of electric transmission facilities, pursuant to Article XII, Section 8 of the California Constitution. CPUC is the Lead Agency for CEQA review for this project and has authority over the discretionary project approval.

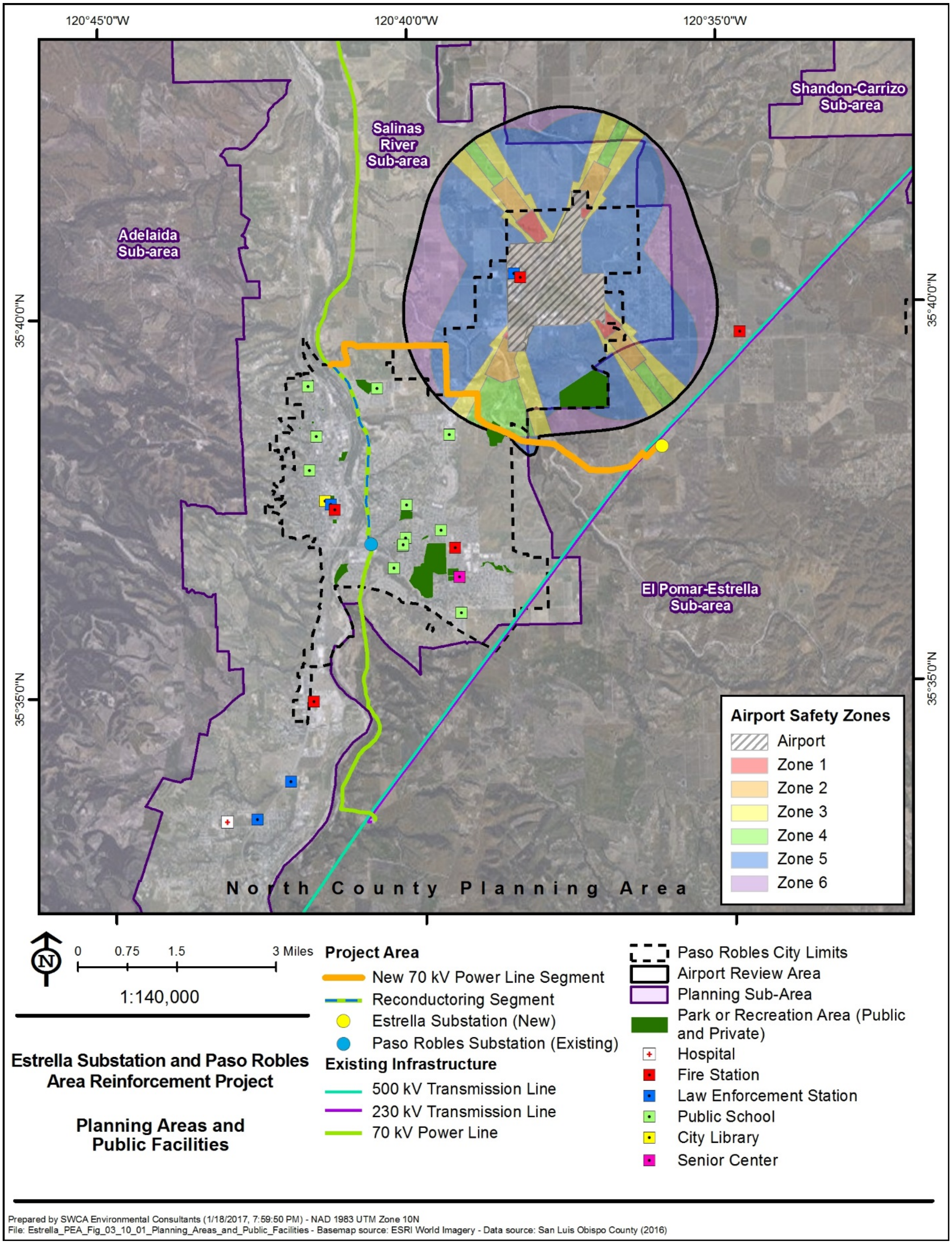
Local

Because CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local land use plans and regulations for informational purposes and to assist with CEQA review.

As shown in Figure 3.10-1, Planning Areas and Public Facilities, the project area is located within portions of the city of Paso Robles and unincorporated areas of San Luis Obispo County. Local plans and ordinances were evaluated and are discussed in Section 3.10.3.3, Local Plans and Policies, including the *County of San Luis Obispo General Plan*, *County of San Luis Obispo Area Plans (Inland – III. North County Area Plan)*, *County of San Luis Obispo Inland Framework for Planning – Land Use Element*, *County of San Luis Obispo Land Use Ordinance (Title 22 of the San Luis Obispo County Code)* (LUO), *City of El Paso de Robles General Plan*, *City of El Paso de Robles Zoning Ordinance (Title 21 of the Municipal Code)*, and the *Airport Land Use Plan* (ALUP) *for the Paso Robles Municipal Airport*.

Although the project is not subject to local discretionary permitting, ministerial permits will be secured, as required. Table 2-11, Potential Permits and Approvals (in Chapter 2.0, Project Description), lists the authorizations that may be required for project construction.

Figure 3.10-1. Planning Areas and Public Facilities



3.10.2.2 Methodology

Local plans and zoning regulations were reviewed for consistency with designated land uses. Geographic Information System (GIS) data was used to determine land uses in the project area. Analysis of land use and planning included a review of the following plans, policies, and resources:

- *City of El Paso de Robles Zoning Ordinance* (City of El Paso de Robles 2016)
- *City of El Paso de Robles General Plan* (City of El Paso de Robles 2003)
- *Airport Land Use Plan for the Paso Robles Municipal Airport* (County of San Luis Obispo Airport Land Use Commission 1977)
- *County of San Luis Obispo General Plan* (County of San Luis Obispo 1980a)
- *County of San Luis Obispo Area Plans (Inland, III. North County Area Plan)* (County of San Luis Obispo 2014)
- County of San Luis Obispo Interactive GIS Mapping and Permit View databases (County of San Luis Obispo 2016a)
- *County of San Luis Obispo Land Use Ordinance (Title 22 of the County Code)* (County of San Luis Obispo 1980b)
- California Department of Fish and Wildlife California Regional Conservation Plans Map (CDFW 2015)
- United States Fish and Wildlife Service Individual Habitat Conservation Plans List (USFWS 2016)

In addition, aerial photos were reviewed and a reconnaissance survey of the general project area from proximate public roadways was conducted to gather relevant information pertaining to the land uses at the project site and surrounding areas.

3.10.3 Environmental Setting

3.10.3.1 Regional Setting

The project is located in northern San Luis Obispo County, extending through portions of the city of Paso Robles and unincorporated areas of San Luis Obispo County north and east of Paso Robles. The project is within the Salinas River and El Pomar-Estrella subareas of the North County Planning Area (see Figure 3.10-1, Planning Areas and Public Facilities). In unincorporated portions of the project area, land use is dominated by agricultural uses, particularly vineyards. Within Paso Robles, land use varies from moderate to densely urbanized areas, with primary land uses including residential, commercial, and light industrial uses.

The project extends approximately 5 miles east of U.S. Highway 101 (US 101) and approximately 1 mile to the north and 1.5 miles to the south of State Route (SR-) 46. The project includes a SR-46 crossing approximately 0.5 mile east of Golden Hill Road in Paso Robles. Huerhuero Creek runs in a northwest direction through the project area; the creek runs generally parallel to the new 70 kV power line segment for approximately 3 miles. Salinas River runs north through Paso Robles, adjacent to US 101 and the reconductoring segment of the power line. The Paso Robles Municipal Airport is located just over 1 mile northeast of the power line route, and portions of the new 70 kV power line segment are within the ALUP area (refer to Figure 3.10-1, Planning Areas and Public Facilities).

3.10.3.2 Local Land Use Setting (Existing Land Use)

This section describes existing land uses and the existing land use setting within all project areas. Per guidance in the CPUC PEA Checklist, a list of all parcels within 300 feet of Estrella Substation and the power line route has been included in Appendix A. Certain public facilities in the project vicinity and planning area boundaries are shown in Figure 3.10-1, Planning Areas and Public Facilities.

Estrella Substation

Estrella Substation will be located approximately 3 miles east of Paso Robles, within a 98-acre parcel currently supporting vineyards. Estrella Substation is approximately 1.5 miles south of SR-46 and 4.75 miles east of US 101. Union Road runs east/west along the southern boundary of the parcel, which is surrounded on all sides by vineyards and other agricultural uses (e.g., wineries, orchards, dry farming, grazing).

The project substation site parcel is one of five contiguous parcels comprising Steinbeck Vineyards & Winery. Steinbeck Vineyards & Winery comprises 114 total acres north of Union Road, including two parcels to the east and two parcels to the west of Estrella Substation. Steinbeck Vineyards & Winery currently supports approximately 76 acres of Cabernet Sauvignon, 11 acres of Chardonnay, 11 acres of Muscat Canelli, 6 acres of Syrah, and 10 acres of Zinfandel. Additional wineries within approximately 2 miles of the substation include (generally in order by distance from Estrella Substation):

- Pear Valley Vineyard & Winery
- Clautiere Vineyard
- Rasmussen Vineyard & Winery
- Gelfand Vineyards
- Penman Springs Vineyard
- RIO SECO Vineyard & Winery
- Mitchella Vineyard & Winery
- Robert Hall Winery
- Vina Robles Vineyards & Winery
- Eberle Winery
- Broken Earth
- Bianchi Winery
- Barr Estate Winery
- Maloy O'Neill Vineyards
- PasoPort Wine Company, Inc.

Three existing transmission lines on two sets of lattice steel towers (LSTs) traverse the project area in a generally northeast/southwest direction, including two 230 kV transmission lines and a 500 kV transmission line. These existing transmission lines are adjacent to the northern portion of the Estrella Substation site; the balance of the substation site will be located immediately to the southeast of the lines. Dry Creek, a blue-line ephemeral tributary to Huerhuero Creek, passes

1,500 feet to the north of the substation site through the northern portion of the parcel. The parcel also includes unpaved farm roads to support maintenance of the vineyards.

Power Line Route

The power line route includes two segments—a new 70 kV power line segment and a reconductoring segment. The new power line segment generally extends northwest from Estrella Substation, approximately 7 miles, to the existing San Miguel-Paso Robles 70 kV power line running north/south on the east side of US 101 and Salinas River. The approximately 3-mile-long reconductoring segment extends from the new power line connection to the existing San Miguel-Paso Robles 70 kV power line near the northern city limits, and then follows the existing San Miguel-Paso Robles 70 kV power line. Existing land uses along these segments are discussed separately below.

The entire length of SR-46 within the project area and portions of US 101 south of SR-46 are designated as Eligible State Scenic Highways (Not Officially Designated) in the California Scenic Highway Mapping System (California Department of Transportation 2016). The Juan Bautista de Anza National Historic Trail corridor passes through the reconductoring segment of the power line, generally following US 101 between Niblick Road and SR-46. A recreational segment of the Anza Trail (though not certified by the National Park Service), also referred to as the Salinas River Parkway Trail, has been developed between Estrella River and South River Road from Niblick Road to Union Road (The Anza Trail Foundation 2016).

New 70 kV Power Line Segment

- The new power line route extending from Estrella Substation west to Huerhuero Creek consists almost entirely of existing vineyards, including Steinbeck Vineyards & Winery and Pear Valley Vineyard & Winery, and other orchards, agricultural, grazing areas, and accessory uses north of Union Road. The first 0.3 mile of this segment includes existing PG&E 230 kV and 500 kV transmission lines, along with their associated LSTs. There are approximately 10 to 15 large-lot rural residences within 1,000 feet of this segment of the power line route. This segment also includes existing distribution lines adjacent to Union Road.
- The new power line route crosses Huerhuero Creek and then follows Union Road to the intersection of Union Road and Paso Robles Boulevard in Paso Robles. Existing distribution lines are located on the north side of Union Road. Land uses along this segment include Huerhuero Creek and sandy river bed (which runs within 500 feet north of the majority of this segment), light industrial uses and rural residential uses north and south of Union Road, agricultural and grazing areas south of Union Road, Barney Schwartz Park on the south side of Union Road, and Paso Robles Sports Club (a private aquatics, fitness, tennis, and spa club) north of Union Road. There are approximately 15 rural single-family residences within 1,000 feet of this portion of the power line route.
- From this location, the new power line route turns north, crosses SR-46, and traverses the northern boundary of the city limits to the point of connection with the existing 70 kV power line. Land uses along this portion include industrial and commercial uses north and south of SR-46 (e.g., El Paso Self Storage, Paso Robles Waste and Recycle, Paso Robles Ford Lincoln, Hank's Welding Services, Crop Production Services, Inc., Mayan

Hardwood, and Davis Boats), single-family residences west of Golden Hill Road, and rural residences and agricultural uses on both sides of the last 2 miles of the segment generally following Buena Vista Drive. This portion of the new power line route extends approximately 1 mile southwest of the Paso Robles Municipal Airport. Portions of the route include existing distribution lines and street lighting within local roadway rights-of-way.

Reconductoring Segment

Reconductoring will occur on approximately 3 miles of the existing single-circuit 70 kV power line, using a combination of tubular steel poles and light duty steel poles, beginning about 0.9 mile north of River Oaks Drive where the new 70 kV power line segment intercepts the existing 70 kV power line. The reconductoring segment runs behind and through predominantly residential areas, extending south along the existing pole line alignment on the east side of River Road for about 1 mile, crossing SR-46, then continuing south for about 2 miles, crossing Union and Creston Roads, then into Paso Robles Substation.

The reconductoring segment will follow the existing PG&E San Miguel-Paso Robles 70 kV power line. Land uses within this segment include the existing PG&E 70 kV power line and other City infrastructure, such as traffic signals and signage, additional public utilities and distribution lines, roadways, parking areas, street lighting, and road shoulders (curbs, gutters, sidewalks) within City right-of-way areas.

Zoning and General Plan Land Use Designations

The project extends through Paso Robles and unincorporated areas of San Luis Obispo County. Figure 3.10-2, City and County General Plan Land Use Designations Map, illustrates the City and County general plan land use designations in the project area. The entire project area within the unincorporated county east of Paso Robles to Estrella Substation is designated Agriculture. The power line route also passes through Residential Rural and Agriculture designations north of Paso Robles, at the city/county boundary. The power line route extends through the following land use designations within the city: Agriculture, Business Park, Commercial Services, Public Facilities, Residential Multiple Family, Residential Single Family, and Residential Suburban.

Figure 3.10-3, City Zoning Designations Map, illustrates the City's zoning designations along the power line route (there is no County Zoning Ordinance, and the unincorporated areas of San Luis Obispo County are not zoned). The power line route extends through the following zoning designations within the city: Agriculture, Commercial/Light Industry, Planned Industrial, Residential Agriculture, Residential Duplex/Triplex, Residential Multifamily, and Residential Single Family.

Public utility facilities regulated by CPUC are not subject to local land use and zoning regulations. While the City and County land use and zoning designations do not apply to this project, transmission lines and public utility facilities are allowed in all City and County land use and zoning categories, consistent with Table 2-2 of the San Luis Obispo County LUO and Table 21.16.200 of the City of El Paso de Robles Zoning Ordinance.

Figure 3.10-2. City and County General Plan Land Use Designations Map

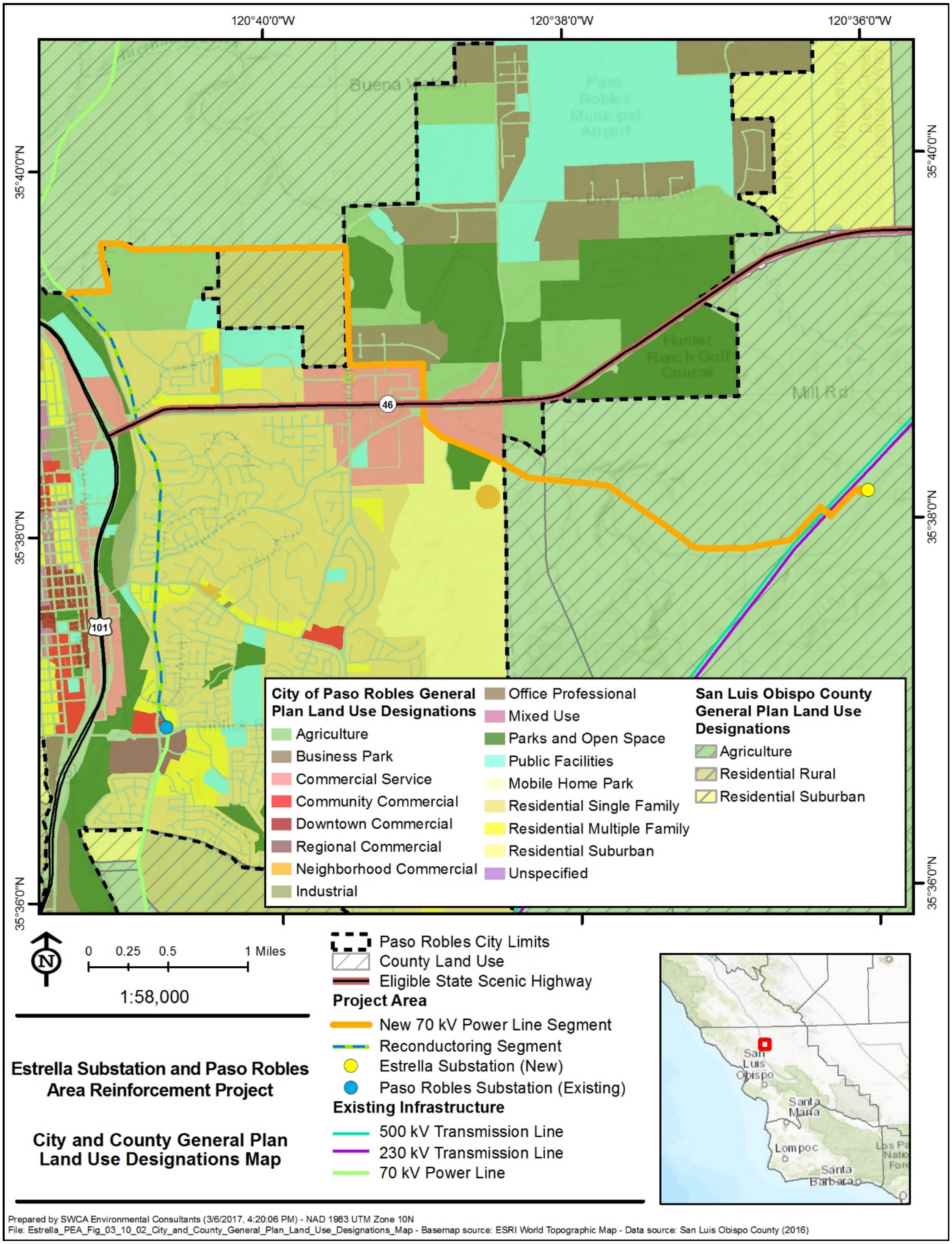


Figure 3.10-3. City Zoning Designations Map

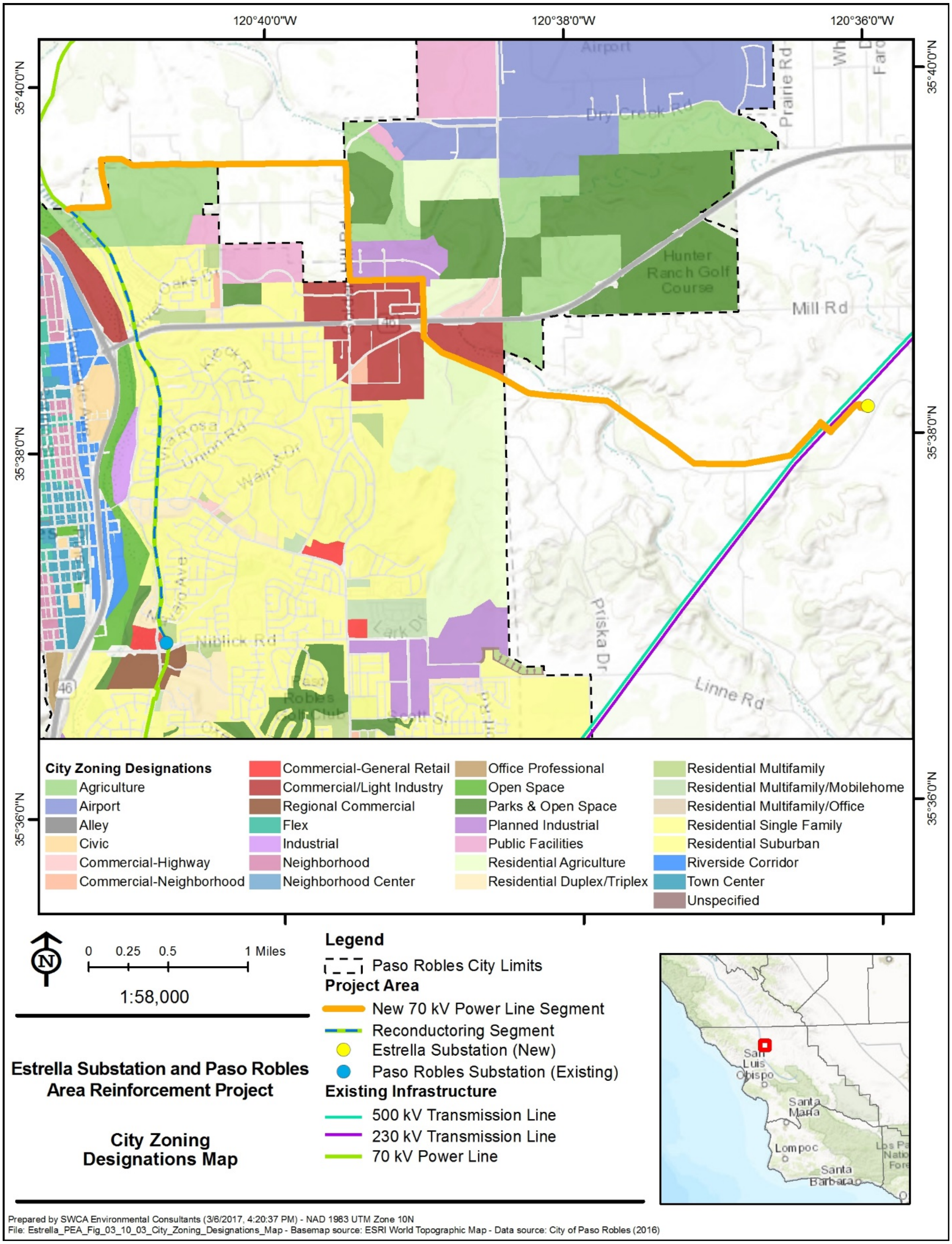


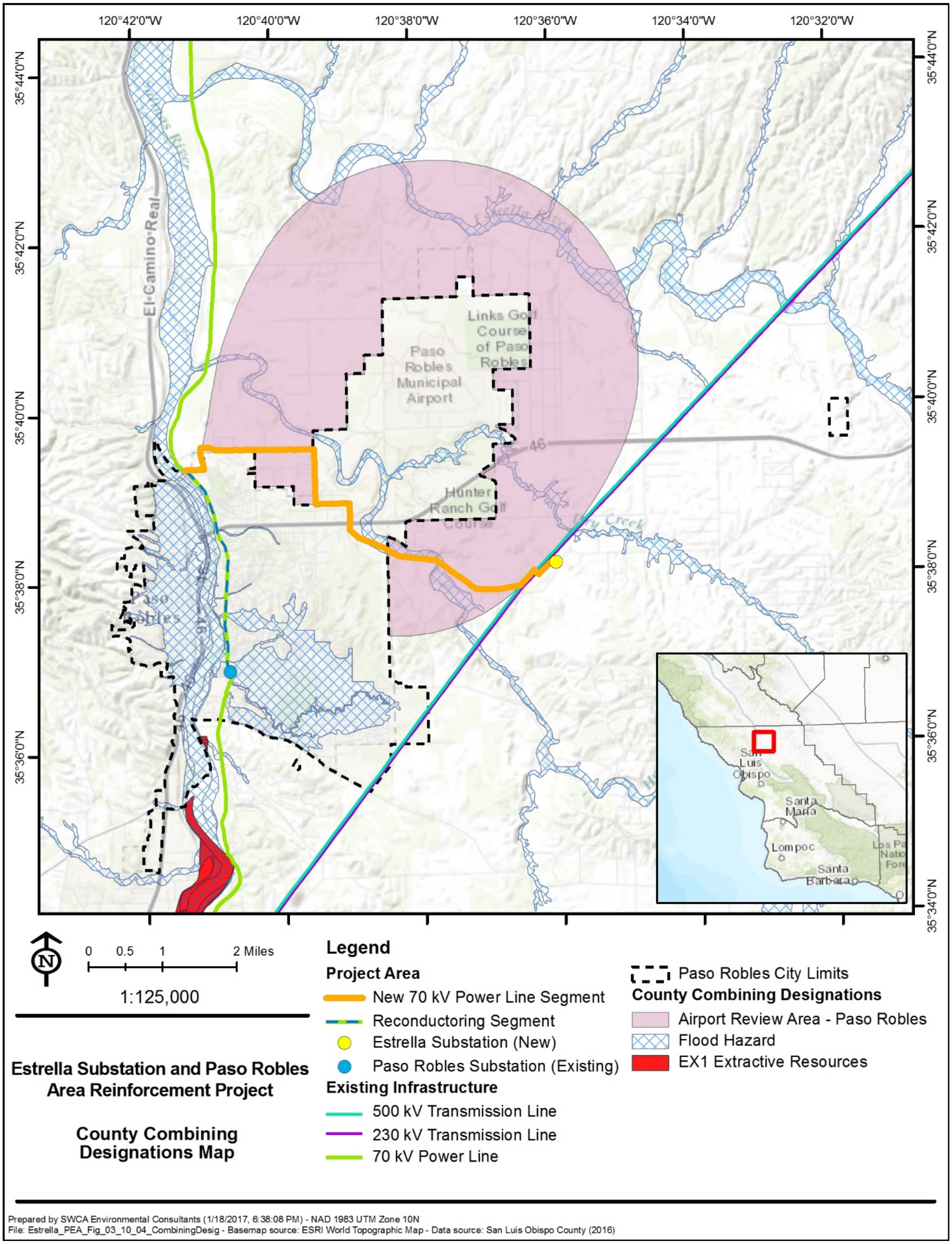
Figure 3.10-4, County Combining Designations Map, illustrates County combining designations in the project vicinity. Combining designations are special overlay categories applied in areas of the county with hazardous conditions or special resources, where more detailed review of projects proposed within County jurisdiction may be needed to avoid adverse environmental impacts or effects of hazardous conditions on proposed projects. Combining designations in and near the project area include: Airport Review Area (AR), Flood Hazard (FH), Extractive Resource Area (EX1), and Renewable Energy (RE). Public utility facilities regulated by CPUC are not subject to local regulations associated with combining designations; this information has been assessed for informational purposes and to assist with CEQA review.

The AR combining designation is used to recognize areas around airports where certain land uses and site development characteristics may conflict with aircraft maneuvers or with the safe and functional use of the airport. Almost the entire length of the new 70 kV power line segment is within the AR combining designation; Estrella Substation and the reconductoring segment are just outside of the AR combining designation.

The FH combining designation is applied to areas where terrain characteristics would present new developments and their users with potential hazards to life and property from potential inundation by a 100-year frequency flood or within coastal high hazard areas. The County's FH standards are also intended to minimize the effects of development on drainage ways and watercourses. The FH designation applies to the 100-year flood zones of Huerhuero Creek and Salinas River within the project area. Approximately 1.25 miles of the new 70 kV power line segment are within the FH designation associated with Huerhuero Creek, generally extending from the route's Huerhuero Creek crossing to the intersection of Union Road and Paso Robles Boulevard just south of SR-46. The approximately 15-acre Estrella Substation site is not located within the FH or any other combining designation.

The EX1 combining designation is used to identify areas of the county, including active mines, that the California Department of Conservation's (DOC) Division of Mines and Geology has classified as containing or being highly likely to contain significant mineral deposits. The purpose of this combining designation is to protect existing resource extraction operations from encroachment by incompatible land uses that could hinder resource extraction (refer to Section 3.11, Mineral Resources, for additional information). Estrella Substation and the power line route are not within the EX1 combining designation. However, there is an EX1 area delineated along Salinas River from the southern limits of Paso Robles to the southern portion of Atascadero, which extends to within approximately 0.3 mile south of the proposed reconductored power line connection at Paso Robles Substation. This area is included in the EX1 combining designation to reflect that it may contain significant deposits of Portland cement concrete aggregate materials.

Figure 3.10-4. County Combining Designations Map



The RE combining designation applies to areas where renewable energy production is favorable and prioritized. Within these areas, the County encourages distributed renewable energy development by streamlining permit requirements and environmental review for such projects within its jurisdiction in a manner that would not degrade ecosystems, agricultural resources, and other environmental resources. The power line route extends through several small areas within the RE combining designation, but the project is not subject to the County's streamlining permit procedures established for RE areas. Therefore, this combining designation is not identified on Figure 3.10-4, County Combining Designations Map, nor discussed further in this section.

3.10.3.3 Local Plans and Policies

As previously stated, the project is not subject to local agency regulations. However, the project proponents have considered the following local plans and regulations in the design of the project. The project's consistency with particular policies within these documents is discussed in Section 3.10.4.3, Potential Impacts, below.

County of San Luis Obispo Land Use Ordinance

The San Luis Obispo County LUO recognizes that discretionary land use permit authority of the County is preempted by state laws regulating utility projects under the jurisdiction of CPUC (County of San Luis Obispo 1980a). The LUO provides that transmission lines and public utility facilities (including substations) are allowed in all land use districts (LUO 22.30.360 and 22.30.370, and Table 2-2). When not preempted by state law, the County LUO includes standards for environmental quality assurance, minimal clearing and revegetation, and fencing and screening of all public utility facilities (LUO 22.30.370).

County of San Luis Obispo General Plan, Inland – III. North County Area Plan, and Inland Framework for Planning – Land Use Element

The *County of San Luis Obispo General Plan* and *Inland Area Plan (III. North County Area Plan)* include policies for the protection of agricultural resources and operations, the project area's historic rural character, and agricultural or open space "community separators" that visually separate one community from the next and provide distinct community character and identity (County of San Luis Obispo 1998, 2014). Policies are included that discourage the expansion of urbanized uses within and adjacent to agricultural areas that could adversely affect the agricultural potential of adjacent properties. The Inland Area Plan describes the Residential Rural area north of Paso Robles as consistent with existing land uses until annexation by the City. Upon planned future annexation, the City will retain the capability to determine urban uses, densities, and layout (County of San Luis Obispo 2014).

City of El Paso de Robles Zoning Ordinance

The *City of El Paso de Robles Zoning Ordinance* provides that public utility distribution and transmission lines within the City's jurisdiction, both overhead and underground, shall be permitted in all districts without limitation as to height and without the necessity of obtaining a permit provided, however, that the routes of electric transmission lines shall be submitted to the Planning Commission for approval, and the approval shall be received prior to the acquisition of rights-of-way or any construction activities (City of El Paso de Robles 2016; Zoning Ordinance 21.20.080). This ordinance does not apply to the project.

City of El Paso de Robles General Plan

The *City of El Paso de Robles General Plan* includes policies for the creation and maintenance of "livable, vibrant neighborhoods" with attractive streetscapes, a pedestrian friendly setting, coordinated site design, adequate public and private spaces, and a recognizable and high quality design aesthetic (City of El Paso de Robles 2003; Policy LU-2D). The City General Plan exempts power lines within its jurisdiction of 44 kV or greater from utility undergrounding requirements (City of El Paso de Robles 2003; Policy LU-2B, Action Item 3).

Airport Land Use Plan for the Paso Robles Municipal Airport

The ALUP for the Paso Robles Municipal Airport was adopted by the San Luis Obispo Airport Land Use Commission (ALUC) in 1977. The ALUP is a local planning document and does not apply to the project. The ALUP sets forth policies to promote compatibility between the Paso Robles Municipal Airport and future land uses in the surrounding area by establishing a set of compatibility criteria that is applicable to new development. The plan provides the basis by which the ALUC can carry out its land use development review responsibilities in accordance with Section 21670 et seq. of the California Public Utilities Code.

The ALUC has adopted Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, using imaginary surfaces to determine height restrictions for natural and artificial objects. Penetration of these imaginary surfaces by permanent structures will endanger pilots and passengers of aircraft operating at the airport and will pose a hazard to persons occupying those structures. The project will comply with these and other federal requirements.

The ALUP includes specific land use policies within six defined safety zones to minimize risks to the safety and property of persons on the ground associated with potential aircraft accidents and to enhance the chances for survival of the occupants involved in an accident. Although the ALUP Land Use Compatibility Matrix contains a blanket prohibition of electric power plants and overhead transmission lines in all zones (ALUC 1977; Table 6 Paso Robles Municipal Airport Land Use Compatibility Matrix), the prohibition does not apply to the project. Applicable federal regulations allow utility line facilities within the height limits of the project. Airport hazards are further discussed in Section 3.8, Hazards and Hazardous Materials, of this PEA.

Habitat Conservation Plans and Natural Community Conservation Plans

Based on a review of the Ventura USFWS office's Habitat Conservation Plan (HCP) database and CDFW's California Regional Conservation Plans map, there are no adopted HCPs or Natural Community Conservation Plans (NCCPs) in the project vicinity.

San Luis Obispo County has worked with CDFW to develop measures (mitigation measures) to reduce impacts to San Joaquin kit fox habitat from project activities to an insignificant level. These mitigation measures are described in the County's information brochure titled *County Guide to San Joaquin Kit Fox Mitigation Procedures under California Environmental Quality*

Act (CEQA). The kit fox mitigation measures only apply to projects where a discretionary County approval is required.

3.10.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for land use impacts derived from Appendix G of the CEQA Guidelines and assess potential project-related construction and operational land use impacts.

3.10.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts on land use and planning were evaluated for each of the criteria listed in Table 3.10-1, CEQA Checklist for Land Use and Planning, as discussed in Section 3.10.4.3, Potential Impacts.

3.10.4.2 Applicant-Proposed Measures

The project will have no impact on land use and planning and no APMs are proposed.

3.10.4.3 Potential Impacts

Project impacts related to land use were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase of the project. Additional analysis of impacts to adjacent land uses during construction and operation of the project is included in other sections of this PEA, including Section 3.1, Aesthetics, Section 3.2, Agriculture and Forestry Resources, Section 3.8, Hazards and Hazardous Materials, Section 3.12, Noise, and Section 3.16, Transportation and Traffic.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, construction and operation of approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line. Estrella Substation will be constructed within an unincorporated area of the county. The new 70 kV power line segment will extend through unincorporated areas of the county, Paso Robles, the ALUP, and the Salinas River and El Pomar-Estrella subareas of the North County Area Plan. The reconductoring segment will extend through Paso Robles and the Salinas River subarea of the North County Area Plan (refer to Figure 3.10-1, Planning Areas and Public Facilities). The reconductoring segment will only involve replacement modifications to an existing power line predominantly within existing easements and no change in current land uses. Therefore, the impact analysis is focused on construction and operation/maintenance of Estrella Substation and the new 70 kV power line segment.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to land use and planning are anticipated at this time as a result of this future project.

Impact Land-a: Physically divide an established community? *(No Impact)*

Construction

Estrella Substation

Estrella Substation will be located within an approximately 15-acre portion of a large agricultural parcel in rural San Luis Obispo County, approximately 3 miles east of Paso Robles. The parcel is surrounded by existing agricultural uses and vineyards. Based on its rural location and lack of surrounding development, construction of Estrella Substation will not physically divide any established community. Construction activities will be temporary and construction access from Union Road will not require loss of access to rural residences in the project vicinity. No impact will occur.

Power Line Route

The new 70 kV power line segment will extend through rural agricultural areas of San Luis Obispo County and low density rural residential, light industrial, commercial, and retail development within Paso Robles. Construction of the new 70 kV power line will be temporary (estimated 7 months) and will not require permanent loss of access within the project area. The reconductoring segment will be located predominantly within existing PG&E utility easements for the existing San Miguel-Paso Robles 70 kV power line and will not change current land uses. The power line route will generally be located adjacent to local roadways and/or within existing utility easements, consistent with other existing utility infrastructure in the project area; therefore, construction of the power line route will not physically divide portions of the surrounding community. No impact will occur.

Operation and Maintenance

Estrella Substation

The substation is not located in an area that will divide an established community and the limited nature and extent of operation and maintenance activities will not interfere with rural residences or communities in the project vicinity. Therefore, operation and maintenance of the substation will not physically divide an established community and no impact will occur.

Power Line Route

The 70 kV power line segment will generally be located adjacent to local roadways and/or within existing utility easements, consistent with other existing utility infrastructure in the project area, and will not physically divide portions of the surrounding community. PG&E's existing local operations and maintenance crews will operate and maintain the power line as a part of current power line maintenance and operation activities. Operation and maintenance activities associated with the power line will not interfere with rural residences or communities in the project vicinity. Therefore, operation and maintenance of the power line will not physically divide an established community and no impact will occur.

Impact Land-b: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? *(No Impact)*

No local land use plans, policies, or regulations requiring discretionary approval apply to the project because, pursuant to G.O. 131-D, CPUC has sole and exclusive jurisdiction over the siting and design of such facilities. Consequently, the project will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project area. There will be no impact.

The project proponents have consulted with local agencies regarding land use matters potentially affected by the project. Although not subject to local land-use regulations, the project is consistent with local land uses.

The project will be located within areas designated as Agriculture and Residential Rural (*County of San Luis Obispo General Plan*) and Agriculture, Business Park, Commercial Services, Public Facilities, and Residential (*City of El Paso de Robles General Plan*). The project also extends within the County's AR, FH, and EX1 combining designations. Pursuant to Table 2-2 of the *County of San Luis Obispo LUO* and Table 21.16.200 of the *City of El Paso de Robles Zoning Ordinance*, transmission lines and public utility facilities are allowed in all City and County land use and zoning categories.

Impact Land-c: Conflict with any applicable habitat conservation plan or natural community conservation plan? *(No Impact)*

There are no adopted HCPs or NCCPs in the project vicinity. The project proponents have incorporated APMs to minimize biological resource impacts (refer to Section 4.4, Biological Resources), including impacts to San Joaquin kit fox, which are consistent with the measures identified in the informational brochure titled *County Guide to San Joaquin Kit Fox Mitigation Procedures for the California Environmental Quality Act (CEQA)*. As a result, no impacts will occur.

3.10.5 References

California Department of Fish and Wildlife (CDFW). August 2015. *California Regional Conservation Plans Map*.

California Department of Transportation. 2016. *California Scenic Highway Mapping System.* Online: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed on July 19, 2016.

City of El Paso de Robles. 2003. *City of El Paso de Robles General Plan*. As amended through November 18, 2014. Online: http://www.prcity.com/government/departments/commdev/planning/general-plan.asp. Accessed July 19, 2016.

____. 2016. *Zoning Ordinance of the City of El Paso de Robles.* Online: https://www.municode.com/library/ca/el_paso_de_robles/codes/code_of_ordinances?nodeId=TIT21ZO_ARTIGERE_CH21.04GEPR_21.04.110TI. Accessed July 2016.

County of San Luis Obispo. 1980a. *Framework for Planning, Inland – The Land Use and Circulation Elements of the County of San Luis Obispo General Plan*. September 1980. As amended through April 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/CZframework.pdf. Accessed July 19, 2016.

____. 1980b. *County of San Luis Obispo Land Use Ordinance (Title 22 of the County Code)*. December 1980. As amended through July 2014. Online: http://www.slocounty.ca.gov/Assets/PL/Ordinances/Title+22+-++Land+Use+Ordinance/01+-+Title+22+-+Land+Use+Ordinance+-+Article+1+through+8.pdf. Accessed July 19, 2016.

____. 1992. *County of San Luis Obispo General Plan, Noise Element.* May 1992. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Noise+Element.pdf. Accessed July 2016.

____. 1998. *County of San Luis Obispo General Plan, Agriculture Element*. As amended through May 2010. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Ag_Element.pdf. Accessed July 2016.

____. 1999. *County of San Luis Obispo General Plan, Economic Element*. October 1999. As amended through October 2012. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/rev_econ_element.pdf. Accessed July 2016.

____. 1999. *County of San Luis Obispo General Plan, Safety Element.* December 1999. As amended through December 3, 2013. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf. Accessed July 2016.

____. 2006. *County of San Luis Obispo General Plan, Parks and Recreation Element*. December 2006. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Parks+and+Recreation+Element.pdf. Accessed July 2016.

____. 2010. *County of San Luis Obispo General Plan, Conservation and Open Space Element*. May 2010. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed July 2016.

____. 2014. *County of San Luis Obispo Land Use and Circulation Elements (Part II), The Area Plans (Inland)*. February 2014. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/LUCE/LUCE+Part+II+-+The+Area+Plans/!_Cover_Table_of_Contents.pdf. Accessed July 2016.

____. 2016a. Interactive GIS Mapping Program. Online: http://www.sloplanning.org/PermitViewMap/MapSearch. Accessed July 2016.

____. 2016b. *County Guide to San Joaquin Kit Fox Mitigation Procedures under California Environmental Quality Act (CEQA)*. Undated. San Luis Obispo County Planning and Building. Online: http://www.slocounty.ca.gov/Assets/PL/environmental/A+Guide+to+Kit+Fox+Mitigation.pdf. Accessed September 2016.

County of San Luis Obispo Airport Land Use Commission. November 1977. *Airport Land Use Plan for the Paso Robles Municipal Airport*. As amended through May 16, 2007.

Paso Robles Wine Country. 2016. Paso Robles Wine Country Map. Online: http://www.pasowine.com/ava-map/. Accessed July 2016.

The Anza Trail Foundation. 2016. Online Anza Trail Experience. Online: http://www.anzahistorictrail.org/. Accessed July 2016.

U.S. Fish & Wildlife Service (USFWS). 2016. Individual Habitat Conservation Plans. Online: https://www.fws.gov/ventura/endangered/habitatconservation/plans/index.html. Accessed July 2016.

3.11 MINERAL RESOURCES

3.11.1 Introduction

This section describes existing conditions and potential impacts on mineral resources as a result of construction, operation, and maintenance of the project. The analysis concludes that there will be no impacts on mineral resources. The project's potential effects on mineral resources were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.11-1, CEQA Checklist for Mineral Resources, and discussed in more detail in Section 3.11.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.11-1. CEQA Checklist for Mineral Resources

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES ***Would the project:***				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.11.2 Regulatory Background and Methodology

3.11.2.1 Regulatory Background

Federal

No federal regulations related to mineral resources are applicable to the project.

State

The California Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Geologist classify land into mineral resource zones (MRZ) according to the known or inferred mineral potential of the land (Public Resources Code [PRC] Sections 2710–2796). SMARA was passed by the California state legislature in response to the loss of significant mineral resources due to urban expansion, the need by land use decision-makers for current information concerning the location and quantity of essential mineral deposits, and to ensure adequate reclamation of mined lands. The objective of the SMARA classification-designation process is to ensure, through appropriate local lead agency policies and procedures, that mineral materials will be available when needed and do not become inaccessible as a result of inadequate information during the land use decision-making process. Mineral land classification reports are produced by the State Geologist as specified by SMARA.

The three MRZs used in the SMARA classification-designation process in the San Luis Obispo-Santa Barbara Production-Consumption Region are defined below (California Geological Survey [CGS] 2011a):

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **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. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- **MRZ-3:** Areas containing known or inferred aggregate resources of undetermined significance.

Local

Because CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local discretionary regulations. However, the project proponents have considered local plans and policies as part of the environmental review process. This section includes a summary of local land use plans that delineate locally important mineral resource recovery sites for informational purposes and to assist with the CEQA review process.

The *County of San Luis Obispo Land Use Ordinance* (LUO) provides regulations for development in delineated Energy and Extractive Resource Areas (EX) and Extractive Resource Areas (EX1). The EX combining designation is used to identify areas of the county where:

1. Mineral or petroleum extraction occurs or is proposed to occur;
2. The state geologist has designated a mineral resource area of statewide or regional significance pursuant to PRC Sections 2710 et seq. (SMARA); and,
3. Major public utility electric generation facilities exist or are proposed.

The purpose of this combining designation is to protect significant resource extraction and energy production areas identified by the County Land Use Element from encroachment by incompatible land uses that could hinder resource extraction or energy production operations, or land uses that would be adversely affected by extraction or energy production.

The EX1 combining designation is used to identify areas of the county that CGS (formerly the California Department of Conservation, Division of Mines and Geology) has classified as containing or being highly likely to contain significant mineral deposits.

The purpose of this combining designation is to protect existing resource extraction operations from encroachment by incompatible land uses that could hinder resource extraction. In addition, the *Framework for Planning – Inland Portion, Part I* of the County Land Use Element contains guidelines that call for proposed land use category amendments to give priority to maintaining land use categories that allow and are compatible with resource extraction.

For projects within County jurisdiction, discretionary approval of any use other than energy production or mineral resource extraction may be granted by the County only when the finding is made that the proposed use will not adversely affect the continuing operation or expansion of the energy or extraction use (LUO 22.14.040 and 22.14.050).

3.11.2.2 Methodology

Information on mineral resources was compiled from literature and maps published by CGS and through review of aerial photographs and local land use planning documents. Geologic units and structural features were obtained from maps published by CGS for the San Luis Obispo-Santa Barbara Production-Consumption Region. Mineral resources impacts that can result from project construction and operational activities were evaluated qualitatively based on site conditions, expected construction practices, and materials, locations, and duration of project construction and operational activities.

3.11.3 Environmental Setting

Considerable mining activity in San Luis Obispo County has taken place in the Santa Lucia Range (which extends north/south approximately 5 to 20 miles west of Paso Robles), with the primary ores extracted being cinnabar, quicksilver, and limestone. The most notable mines in northern San Luis Obispo County are the Lime Mountain, Klau, Buena Vista, Bonanza, Oceanic, and Almaden Mines, but only Lime Mountain (approximately 17 miles west of Paso Robles) is still in operation at the present time (County of San Luis Obispo 2014b). Approximately 45 acres of limestone are currently being mined at Lime Mountain for use by sugar companies in their refining process.

There are seven quarries located within the Salinas River subarea (refer to Figure 3.10-1, Planning Areas and Public Facilities). Six of the quarries are located in or adjacent to Salinas River, including one in Paso Robles just north of where Union Road crosses Salinas River, one near the southern boundary of Paso Robles, three near Templeton, and one near Atascadero (Office of Mine Reclamation 2016). They are all open pit sand and gravel mining operations. The only quarry not located in or adjacent to Salinas River is Kaiser Quarry, which is located approximately 1.5 miles southeast of Atascadero; it is the largest sand, gravel, and crushed rock operation in the county.

Per the State Geologist's land classifications under SMARA, Estrella Substation and a majority of the power line route are within a MRZ-1 zone, indicating a low likelihood for the presence of significant aggregate resources. Two segments of the new 70 kV power line will be constructed in areas classified as MRZ-3 (areas with potential mineral resources of undetermined significance). The nearest MRZ-2 zone is delineated along the Salinas River approximately 0.3 mile southwest of existing 70 kV line and the proposed reconductoring segment connection to Paso Robles Substation. Additional areas of Huerhuero Creek approximately 5 miles southeast of Estrella Substation have been reclassified as MRZ-2 in a 2011 CGS Update of Mineral Land Classification (CGS 2011a).

Estrella Substation and the power line route are not within the EX or EX1 combining designations. An EX1 area is delineated along Salinas River from the southern limits of Paso Robles to the southern portion of Atascadero, which extends to within approximately 0.3 mile west of the existing 70 kV line and proposed reconductoring segment connection at Paso Robles Substation. This area is included in the EX1 combining designation to reflect that it is classified by CGS as containing or highly likely to contain significant deposits of Portland cement concrete aggregate materials (refer to Figure 3.10-4, Combining Designation Map).

Commercially extractable petroleum resources have not been encountered in the project vicinity or are not of a high enough quality to support their extraction (County of San Luis Obispo 2014b). No other significant mineral resources (i.e., gold or other valuable metals, magnesium-rich serpentine, or bentonite) are known to exist in the project area.

3.11.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts on mineral resources derived from Appendix G of the CEQA Guidelines and assess potential project-related construction and operational impacts. Because the project will not result in significant impacts on mineral resources, APMs have not been included for this section.

3.11.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts on mineral resources were evaluated for each of the criteria listed in Table 3.11-1, as discussed in Section 3.11.4.3, Potential Impacts.

3.11.4.2 Applicant-Proposed Measures

No APMs are proposed because the project will have no impact on mineral resources..

3.11.4.3 Potential Impacts

Project impacts related to mineral resources were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase. As discussed below, no significant impacts will occur.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to mineral resources are anticipated at this time as a result of this future project.

Impact Mineral-a: Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? *(No Impact)*

Construction

Estrella Substation

Estrella Substation is within an area classified as MRZ-1 (areas with little likelihood for the presence of significant mineral resources). The Estrella Substation site currently supports vineyards and does not, and has not in the past, supported mining operations. Project-related construction activities will have no impact on known mineral resources.

Power Line Route

The majority of the power line route is within areas classified as MRZ-1 (little likelihood for the presence of significant mineral resources). Existing sand mining operations within Salinas River in Paso Robles are located 0.25 mile or greater from the reconductoring segment of the existing 70 kV power line and will not be affected by reconductoring activities. The reconductoring segment of the 70 kV line has largely been developed with urban uses within Paso Robles, which generally precludes mining activities. No impacts on known mineral resources will occur in an MRZ-1 zone.

No portion of the power line route is within an area classified as MRZ-2). MRZ-2 zones delineated along Salinas River and Huerhuero Creek in the project vicinity will not be impacted by project-related construction activities. Therefore, construction of the power line will have no impacts on known mineral resources in an MRZ-2 zone.

Portions of the power line route, including the crossing at Huerhuero Creek and approximately 2 miles of new 70 kV power line extending from Golden Hill Road to the proposed interconnect with the existing San Miguel-Paso Robles 70 kV power line, are within a MRZ-3 zone, indicating areas containing known or inferred mineral occurrences of unknown mineral resource significance. Project-related construction activities in these areas will be temporary, limited in nature, and will require a minimal amount of ground disturbance associated with placement of new light-duty steel poles (LDSPs) or tubular steel poles (TSPs), predominantly within existing local and/or PG&E utility easements.

Mineral resources, if present within these areas, could be made locally inaccessible by construction of the power line poles; however, no current mining operations occur in these areas and the likelihood of future mining in the project area is low due to the extent of existing agricultural and urban development. Mining uses are not prohibited within existing PG&E easements as long as they don't interfere with PG&E's full enjoyment of its easement rights and do not create a G.O. 95 and/or a California Division of Occupational Safety and Health infraction, and construction activities will not inhibit the ability to recover mineral resources in the future if such resources are determined to be present. Due to the lack of known mineral resources within the power line route, the low likelihood of future mining activities in the project area, and the limited nature and extent of construction activities proposed in areas with the potential to contain mineral resources, construction of the 70 kV power line will have no impacts on known mineral resources in an MRZ-3 zone.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation within the MRZ-1 zone, including regular inspections and yearly maintenance, will have no effect on mineral resources at the site or existing mining operations in northern San Luis Obispo County. No impact will occur.

Power Line Route

Operation and maintenance of the power line route, including regular inspections and maintenance activities as necessary, will not significantly affect mineral resources in the project area. Mineral resources (if found to occur within the power line route) will not be impacted by operation of the power lines and project operation will not preclude the future recovery of mineral resources at these locations. Operation of the power line will have no impact on other mining operations in San Luis Obispo County. Therefore, no impacts will occur.

Impact Mineral-b: Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? *(No Impact)*

No portion of Estrella Substation or the power line route is within an EX or EX1 combining designation or any other locally-important resource recovery site delineated on a local general plan, specific plan, or other land use plan. Except for these combining designations, which reflect the State Geologist's land classifications under SMARA and MRZ zones, the County has not designated any locally-important mineral resource areas in San Luis Obispo County. Therefore, no impacts on locally-important mineral resources will occur from construction or operation and maintenance of the project.

3.11.5 References

California Department of Conservation, California Geological Survey (CGS). 2011a. *Update of Mineral Land Classifications: Concrete Aggregate in the San Luis Obispo – Santa Barbara Production-Consumption Region, California*.

____. 2011b. *Updated Mineral Land Classification Map for Concrete-Grade Aggregates in the San Luis Obispo – Santa Barbara Production-Consumption Region, California – North Half*. California Geological Survey, Special Report 215, Plate 1A, scale 1:100,000.

____. 2011c. *Updated Aggregate Resource Sector Map for the San Luis Obispo – Santa Barbara Production-Consumption Region, California – Northern Part*. California Geological Survey, Special Report 215, Plate 2A, scale 1:48,000.

California Department of Conservation, Office of Mine Reclamation. 2016. Mines Interactive Map. Online: http://maps.conservation.ca.gov/mol/mol-app.html. Accessed July 24, 2016.

California Department of Conservation, State Mining and Geology Board and Division of Mines and Geology. 2004. *California Surface Mining and Reclamation Policies and Procedures: Guidelines for Classification and Designation of Mineral Lands*. Online: http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf. Accessed July 24, 2016.

County of San Luis Obispo. 1980. *Framework for Planning, Inland – The Land Use and Circulation Elements of the County of San Luis Obispo General Plan*. September 1980. As amended through April 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/CZframework.pdf. Accessed July 24, 2016.

____. 2014a. *Land Use Ordinance – Title 22 of the County Code*. As amended through July 2014.

____. 2014b. *The Area Plans, County of San Luis Obispo Land Use and Circulation Elements (Part II)*. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/CZframework.pdf. Accessed Ju;y 24, 2016.

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3.12 NOISE

3.12.1 Introduction

This section describes noise impacts associated with construction, operation, and maintenance of the project. The analysis concludes that impacts will be less than significant. Implementation of Applicant-Proposed Measures (APMs) described in Section 3.12.4.2, Applicant-Proposed Measures, will further reduce already less-than-significant noise impacts. The project's noise-related effects were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.12-1, CEQA Checklist for Noise, and discussed in more detail in Section 3.12.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.12-1. CEQA Checklist for Noise

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE ***Would the project:***				
a) Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Expose persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Table 3.12-1. CEQA Checklist for Noise

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.12.1.1 Fundamentals of Noise

Noise Definitions and Metrics

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and that interferes with or disrupts normal activities. Although prolonged exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise; the perceived importance of the noise, and its appropriateness in the setting; the time of day and the type of activity during which the noise occurs; and the sensitivity of the individual. Airborne sound is the fluctuation of air pressure above and below atmospheric pressure. Several ways exist to measure sound, depending on the source, receiver, and reason for the measurement.

Community sound levels are generally presented in terms of A-weighted decibels (dBA). The A-weighting network measures sound in a similar fashion to how a person perceives or hears sound, thus achieving a strong correlation with how people perceive acceptable and unacceptable sound levels. Table 3.12-2, Typical Sound Levels Measured in the Environment and Industry, presents A-weighted sound levels and the general subjective responses associated with common sources of noise in the physical environment.

A-weighted sound levels are typically measured or presented as the equivalent sound pressure level (L_{eq}), which is defined as the average noise level on an equal-energy basis for a stated period of time and commonly is used to measure steady-state sound that is usually dominant. Statistical methods are used to capture the dynamics of a changing acoustical environment. Statistical measurements are typically denoted by L_n, where "n" represents the percentile of time that the sound level is exceeded. Therefore, L_{90} represents the noise level that is exceeded during 90% of the measurement period, which typically represents a continuous noise source. Similarly, L_{10} represents the noise level exceeded for 10% of the measurement period.

Another metric used in determining the impact of environmental noise is the differences in response that people have to daytime and nighttime noise levels. During the evening and at night, exterior background noises generally are lower than daytime levels. However, most household noise also decreases at night, and exterior noise becomes more noticeable. Furthermore, most people sleep at night and are sensitive to intrusive noises. To account for human sensitivity to evening and nighttime noise levels, the day-night sound level (L_{dn}) (also referred to as DNL) and the community noise equivalent level (CNEL) were developed. The L_{dn} is a noise metric that accounts for the greater annoyance of noise during the nighttime hours (10:00 p.m. to 7:00 a.m.). The CNEL is a noise index that accounts for the greater annoyance of noise during both the evening hours (7:00 p.m. to 10:00 p.m.) and nighttime hours.

Table 3.12-2. Typical Sound Levels Measured in the Environment and Industry

Noise Source at a Given Distance	Sound Level in A-weighted Decibels (dBA)	Qualitative Description
Carrier deck jet operation	140	
	130	Pain threshold
Jet takeoff (200 feet)	120	Deafening
Auto horn (3 feet)	110	Maximum vocal effort
Jet takeoff (1,000 feet) Shout (0.5 foot)	100	
Heavy truck (50 feet) Power mower	90	Very loud/annoying; Hearing damage (8-hour, continuous exposure)
Pneumatic drill (50 feet)	80	Very loud
Living room music	70	Loud/Intrusive (telephone use difficult)
Air conditioning unit (20 feet) Human voice (3 feet)	60	
Light auto traffic (50 feet) Residential air conditioner (50 feet)	50	Moderate/Quiet
Living room/Bedroom Bird calls	40	
Library Soft whisper (5 feet)	30	Very quiet
Broadcasting/Recording studio	20	Faint
	10	Just audible
	0	Threshold of human audibility

Source: Adapted from Table E, "Assessing and Mitigating Noise Impacts" (New York Department of Environmental Conservation 2001) and "Handbook of Environmental Acoustics: (Cowan, James P. 1993).

L_{dn} values are calculated by averaging hourly L_{eq} sound levels for a continuous 24-hour period on an energy basis, applying a weighting factor of 10 decibels (dB) to the nighttime values. CNEL values are calculated similarly, except that a 5-dB weighting factor also is added to evening L_{eq} values. The applicable adjustments, which reflect the increased sensitivity to noise during evening and nighttime hours, are applied to each hourly L_{eq} sound level for the calculation of L_{dn} and CNEL. For the purposes of assessing noise, the 24-hour day is divided into three time periods, with the following adjustments:

- Daytime hours: 7:00 a.m. to 7:00 p.m. (12 hours)—adjustment of 0 dBA
- Evening hours (for CNEL only): 7:00 p.m. to 10:00 p.m. (3 hours)—adjustment of +5 dBA
- Nighttime hours (for both CNEL and L_{dn}): 10:00 p.m. to 7:00 a.m. (9 hours)—adjustment of +10 dBA

The hourly adjusted time-period noise levels are then averaged (on an energy basis) to compute the overall L_{dn} or CNEL value. For a continuous noise source, the L_{dn} value can be computed by adding 6.4 dBA to the overall 24-hour noise level (L_{eq}). For example, if the expected continuous noise level from a noise source is 60.0 dBA, the resulting L_{dn} from the source will be 66.4 dBA. Similarly, the CNEL for a continuous noise source is computed by adding 6.7 dBA to the overall 24-hour L_{eq}.

The general human response to changes in noise levels that are similar in frequency content (such as comparing increases in continuous [L_{eq}] traffic noise levels) are summarized as follows:

- A 3-dB change in sound level is considered to be a barely noticeable difference.
- A 5-dB change in sound level typically is noticeable.
- A 10-dB increase is considered to be a doubling in loudness.

Corona Noise

Corona generates audible noise during operation of high-voltage transmission lines. Under certain conditions, the localized electric field near an energized conductor can be sufficiently concentrated to produce a tiny electric discharge that can ionize air close to the conductors. This partial discharge of electrical energy is called corona discharge, or corona. Several factors, including conductor voltage, shape and diameter, and surface irregularities such as scratches, nicks, dust, or water drops, can affect a conductor's electrical surface gradient and its corona performance. Corona is the physical manifestation of energy loss, and can transform discharge energy into very small amounts of sound, radio noise, heat, and chemical reactions of the air components.

Transmission lines can generate a small amount of sound energy during corona activity. This audible noise from the line can barely be heard in fair weather conditions on higher voltage lines. During wet weather conditions (such as rain or fog), water drops collect on the conductor and increase corona activity so that a crackling or humming sound may be heard near the line. This noise is caused by small electrical discharges from the water drops. However, during heavy rain, the ambient noise generated by the falling raindrops will typically be greater than the noise generated by corona. Corona noise is generally more noticeable on high-voltage lines, and is not a design issue for power lines rated at 230 kV and lower. Furthermore, the 70 kV power line and 230 kV interconnection are in the vicinity of existing 500 and 230 kV transmission lines. Corona noise from the 500 kV transmission line will make any corona noise from the 70 kV power line or 230 kV interconnection inaudible.

Vibration

Groundborne vibration may be induced by traffic and construction activities, such as pile driving and earthmoving. Generally speaking, vibration is energy transmitted in waves through the ground. Because energy is lost during the transfer of energy from one particle to another, vibratory energy is reduced with increasing distance from the source. Vibration attenuates at a rate of approximately 50% for each doubling of distance from the source. This approach only takes into consideration the attenuation from geometric spreading. Because additional factors reduce vibration over distance (e.g., damping from soil condition), this approach tends to provide for a conservative assessment of vibration level at the receiver.

The effects of groundborne vibration may include perceptible movement of building floors, interference with vibration-sensitive instruments, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. The rumbling sound heard is the noise radiated from the motion of the room surfaces. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance would be well below the damage threshold for normal buildings. Groundborne vibration is almost never annoying to people who are outdoors; without the effects associated with the shaking of a building, the rumble noise of vibrations is not perceptible.

3.12.2 Regulatory Background and Methodology

3.12.2.1 Regulatory Background

Federal

No federal regulations limit overall environmental noise levels; however, federal guidance documents exist that address environmental noise and regulations for specific noise sources. For example, the Federal Highway Administration (FHWA), U.S. Department of Transportation (DOT), Federal Railroad Administration (FRA) and Federal Transit Administration (FTA), and Federal Aviation Administration (FAA) and Federal Interagency Committee on Urban Noise (FICUN) provide regulations and guidelines for noise impacts resulting from federal highways, aircraft usage, railroads, and other development, as described in the following paragraphs. While these standards are not directly applicable to utility construction projects, they provide some context for the impact analysis.

Federal Highway Administration

The FHWA noise abatement criteria establish absolute exterior noise levels for varying land use categories where an impact is triggered. The noise abatement criteria require maintenance of L_{eq} for noise levels emitted in lands classified as categories "A" (lands for which serenity and quietness are significant), "B" (lands near sensitive receptors, defined as picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals) as 67 dBA, and "C" (developed lands, properties, or activities not included in categories "A" or "B") as 72 dBA.

Federal Transit Administration

The FTA has established guidelines for construction vibration to avoid harmful effects from excessive groundborne vibration. The damage criteria developed by FTA are in the range of 0.12 to 0.5 PPV for structural damage depending on the fragility of the structure of concern. The project is not subject to FTA regulations; however, these guidelines serve as a useful tool to evaluate vibration impacts on structures.

Federal Aviation Administration and Federal Interagency Committee on Urban Noise

Finally, FAA and FICUN have issued land-use compatibility guidelines indicating that a yearly L_{dn} of less than 65 dBA (59 dBA L_{eq}) is compatible with residential land uses and that, if a community determines it is necessary, levels up to 75 dBA (69 dBA L_{eq}) may be compatible with residential uses and transient lodgings that incorporate noise-reduction features (Code of Federal Regulations [CFR] Title 14, Part 150).

State

No state regulations limit environmental noise impacts.

Local

Because CPUC regulates and authorizes the construction of investor-owned public utility facilities, CPUC has exclusive jurisdiction over the siting and design of the project. As such, projects, including this project, are exempt from local noise ordinances. County of San Luis Obispo (County) and City of El Paso de Robles (City) polices are provided below for informational purposes and to assist with CEQA review. Airport Land Use Compatibility Plans are discussed in Section 3.10, Land Use and Planning, and safety concerns around airports are discussed in Section 3.8, Hazards and Hazardous Materials.

County of San Luis Obispo General Plan, Noise Element

The County adopted the *County of San Luis Obispo General Plan Noise Element* on May 5, 1992. The Noise Element does not regulate construction noise.

The Noise Element is directed at minimizing future noise conflicts in the county, and provides specific policies regulating new development within County jurisdiction of noise-sensitive land uses or development resulting in noise impacts to noise-sensitive land uses caused by stationary noise sources. For new development within County jurisdiction, the *County of San Luis Obispo General Plan Noise Element* notes that, where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB may be allowed. The elevated L_{dn}/CNEL is contingent upon implementation of available exterior noise level reduction measures and compliance of interior noise levels (County of San Luis Obispo 1992a).

The noise compatibility guidelines, as defined in the Noise Element, are presented in Table 3.12-3, County of San Luis Obispo General Plan Noise Land-Use Compatibility Guidelines. These guidelines are used to determine whether mitigation is needed for development of land uses near major transportation noise sources. In areas where the noise environment is "acceptable," new development may be permitted without requiring noise mitigation. For areas where the noise environment is "conditionally acceptable," new development should be allowed only after noise mitigation has been incorporated into the design of the project to reduce noise exposure to the levels specified by Table 3.12-4, Maximum Allowed Exterior Noise Level Standards. For areas where the noise environment is "unacceptable," new development in compliance with the policies of Noise Element Section 3.3 is usually not feasible.

Table 3.12-3. County of San Luis Obispo General Plan Noise Land-Use Compatibility Guidelines

Land Use Category	Exterior Noise Level (CNEL)					
	55	60	65	70	75	80
Residential—single family residences, mobile homes, senior housing, convalescent homes, Pub Assembly & Entertainment (except meeting halls)	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Transient Lodging – Bed and Breakfast Facilities, Hotels and Motels	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable
Schools, churches, hospitals, nursing homes, child care facilities, libraries and museums	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable
Outdoor Sports and Recreation	Acceptable	Acceptable	Acceptable	Acceptable	Conditionally Acceptable	Unacceptable
Offices	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable

ACCEPTABLE—Specified land use is satisfactory; no mitigation is required.

CONDITIONALLY ACCEPTABLE—Use should be permitted only after careful study and inclusion of mitigation measures as needed to satisfy polices of the Noise Element.

UNACCEPTABLE—New construction or development shall not be undertaken.

Source: County of San Luis Obispo 1992a.

Table 3.12-4. Maximum Allowed Exterior Noise Level Standards[1]

	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)[2]
Hourly L_{eq}, dB	50	45
Maximum level, dB	70	65
Maximum level, dB-Impulsive Noise	65	60

[1] As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

[2] Applies only where the receiving land use operates or is occupied during nighttime hours.

Note: In the event the measured ambient noise level exceeds the applicable exterior noise level standard in Subsection B.1, the applicable standard shall be adjusted so as to equal the ambient noise level plus 1 dB.

Source: County of San Luis Obispo 1992a and b.

The *County of San Luis Obispo General Plan Noise Element* seeks to preserve rural areas from the encroachment of urban noise, by preventing the exposure of residents to excessive noise levels while protecting facilities and operations that may generate noise but are essential to the economic viability of the county. The General Plan identifies goals and the policies used to meet those goals to promote compatibility between land uses.

County of San Luis Obispo Noise Ordinance

The *County of San Luis Obispo Noise Ordinance* (County of San Luis Obispo 1992b) is codified at Title 22, Article 3, Chapter 22.10.120 of the San Luis Obispo County Code. Construction noise is exempt from the noise standards defined in the noise ordinance, provided that such activities take place between 7:00 a.m. to 9:00 p.m. Monday thru Friday and 8:00 a.m. to 5:00 p.m. Saturday and Sunday. The noise ordinance establishes prohibitions for disturbing, excessive, or offensive noise and contains provisions, such as sound level limits, for the purpose of securing and promoting public health, comfort, safety, peace, and quiet.

City of El Paso De Robles Noise Ordinance

Section 9.07.030(i) of Ordinance No. 466 N.S. of the City Municipal Code states that construction or land grading for projects within City jurisdiction that use equipment in such a manner as to be plainly audible at a distance of 50 feet from the building must only operate between the hours of 7:00 a.m. and 7:00 p.m., except in case of urgent necessity in the interest of public health and safety, and then only with a permit from the Zoning Administrator.

3.12.2.2 Methodology

This section describes the noise analysis area, the assumptions and methodology used to calculate noise and vibration impacts, a description of the impact approach, and identification of what will be considered a significant noise impact from the construction and operation of Estrella Substation and the power line route.

Analysis Area

The analysis area for the evaluation of noise impacts for Estrella Substation is 2,640 feet (0.5 mile) from the substation location. The analysis area for the new 70 kV power line segment and reconductoring segment is 1,320 feet (0.25 mile) from the power line route. Refer to Figures 3.12-2a and 3.12-2b, Project Area Sensitive Noise Receptors, which illustrate the noise analysis area.

Modeled Noise Levels

The construction noise level was estimated using the FHWA Roadway Construction Noise Model (RCNM). The RCNM is FHWA's national model for the prediction of construction noise. This software is based on actual sound level measurements from various equipment types taken during the Central Artery/Tunnel project conducted in Boston, Massachusetts, during the early 1990s. The maximum noise levels presented at the nearest sensitive receptor are based on a roster of likely construction equipment operating and average distance of construction equipment to the sensitive receptor. Although the project is not a road construction project, the RCNM includes the same types of equipment that will be used in the construction of the project. Worker commutes and material delivery vehicles will cause noise that will be short term and have little effect on the hourly average noise level. Therefore, this traffic was not included in the construction noise analysis.

For noise generated by Estrella Substation, standard acoustical engineering methods were used and were based on vendor-supplied equipment noise levels. For simplicity, these noise levels were based on the loudest equipment—the 230/70 kV transformer and the heating, ventilation, and air conditioning (HVAC) units at the 70 kV and 230 kV control buildings. This simplification is reasonable because the equipment generating the most noise will be near the center of Estrella Substation and the actual layout of the facility will have structures (including other noise-generating equipment) that will function to block and attenuate sound from other sources. Predicted levels at the closest sensitive receptor were calculated based on geometric spreading attenuation using International Organization for Standardization (ISO) 9613-2, *Acoustics – Sound Attenuation during Propagation Outdoors* (ISO 1996). Additional attenuation factors, such as noise-reducing intervening terrain, structures, and barriers cannot be considered with this methodology. Thus, this methodology is conservative. Corona noise is generally more noticeable on high-voltage lines, and is not a design issue for power lines rated at 230 kV and lower.

3.12.3 Environmental Setting

3.12.3.1 Existing Noise Conditions

The project is located within the northern portion of San Luis Obispo County, including portions of Paso Robles (see Figure 2-2, Project Overview Map). Contributors to the noise environment primarily consist of continuous sounds of traffic along highways and city roads, airplane noise, sounds emanating from neighborhoods, and naturally occurring sounds (e.g., wind). Land uses within and around Estrella Substation are mostly agricultural and more specifically vineyards. Land uses within the power line route include agricultural (vineyard) and residential. A portion of the power line route runs parallel to existing 500 kV and 230 kV transmission lines. Corona noise from the 500 kV transmission line will dominate any corona noise from the new 70 kV power line segment and the 230 kV interconnection.

A community noise survey was performed to measure background ambient noise levels at the substation site. Existing noise levels were measured for approximately 72 hours from May 11 through May 14, 2016. Four Larson Davis LD 831 Sound Level Meters were placed close to each corner of the Estrella Substation baseline noise survey area and left undisturbed for the entire period to capture the noise background level as best as possible. The noise monitoring locations are shown on Figures 3.12-2a and 3.12-2b, Project Area Sensitive Noise Receptors, and the measured L_{eq} and CNEL ranges are shown in Table 3.12-5, Summary of Ambient Sound Measurements. Location 1 is representative of the noise background level at the residence nearest the substation site. L_{eq} and CNEL are both averages of sound level, but CNEL adds 5 dBA to evening noise and 10 dBA to nighttime noise to account for increased human sensitivity to noise during these hours. This data is included in the Estrella Substation Baseline Noise Survey Report included as Appendix K.

Not occurring during the time of the baseline noise survey measurements were several sources of ambient noise that typically occur at specific times of the year and are associated with agricultural activities. These noise sources include farm equipment used during harvest season, pesticide-application machinery, and low-flying fire-fighting aircraft. During times of the year when these noise sources are occurring regularly, ambient sound levels will be higher than those shown here.

Table 3.12-5. Summary of Estrella Substation Ambient Sound Measurements

Source	L_{eq}	CNEL	L_{dn}	L_{day}	L_{night}	L_{den}	L_{day}	$L_{evening}$	L_{night}
				7:00 a.m.– 10:00 p.m.	10:00 p.m.– 7:00 a.m.		7:00 a.m.– 7:00 p.m.	7:00 p.m.– 10:00 p.m.	10:00 p.m.– 7:00 a.m.
Location 1	48.4	53.3	52.8	49.6	45.5	53.3	49.4	49.9	45.5
Location 2	47.6	50.9	50.0	49.3	41.0	50.9	49.2	49.4	41.0
Location 3	45.7	50.9	50.4	46.7	43.4	50.9	46.6	47.0	43.4
Location 4	50.5	53.7	53.2	52.1	44.5	53.7	52.4	50.2	44.5
Average Baseline	**48.1**	**52.2**	**51.6**	**49.4**	**43.6**	**52.2**	**49.4**	**49.1**	**43.6**
Maximum Baseline	**50.5**	**53.7**	**53.2**	**52.1**	**45.5**	**53.7**	**52.4**	**50.2**	**45.5**

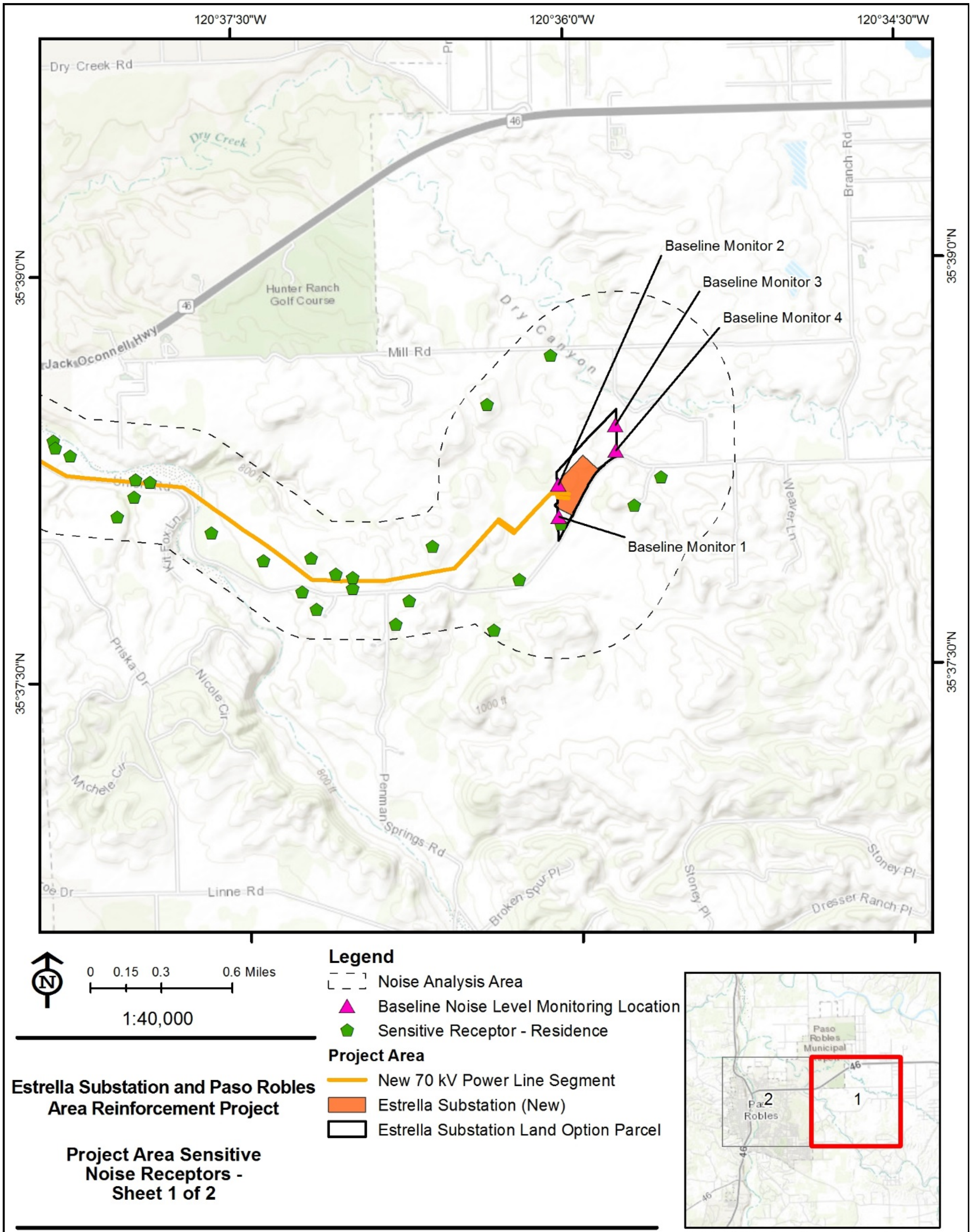
3.12.3.2 Sensitive Receptors

Noise-sensitive receptors generally are defined as locations where people reside or where the presence of unwanted sound may adversely affect the existing land use. Typically, noise-sensitive land uses include residences, hospitals, places of worship, libraries, performance spaces, offices, and schools, as well as nature and wildlife preserves, recreational areas, and parks. Sensitive receptors within 1,320 feet (0.25 mile) of the power line route and within 2,640 feet (0.5 mile) of Estrella Substation were analyzed for potential impacts as a result of project construction and operation (see Table 3.12-6, Potential Sensitive Receptors in the Vicinity of the Project, and Figures 3.12-1a and 3.12-1b, Project Area Sensitive Noise Receptors).

Table 3.12-6. Sensitive Receptors in the Vicinity of the Project

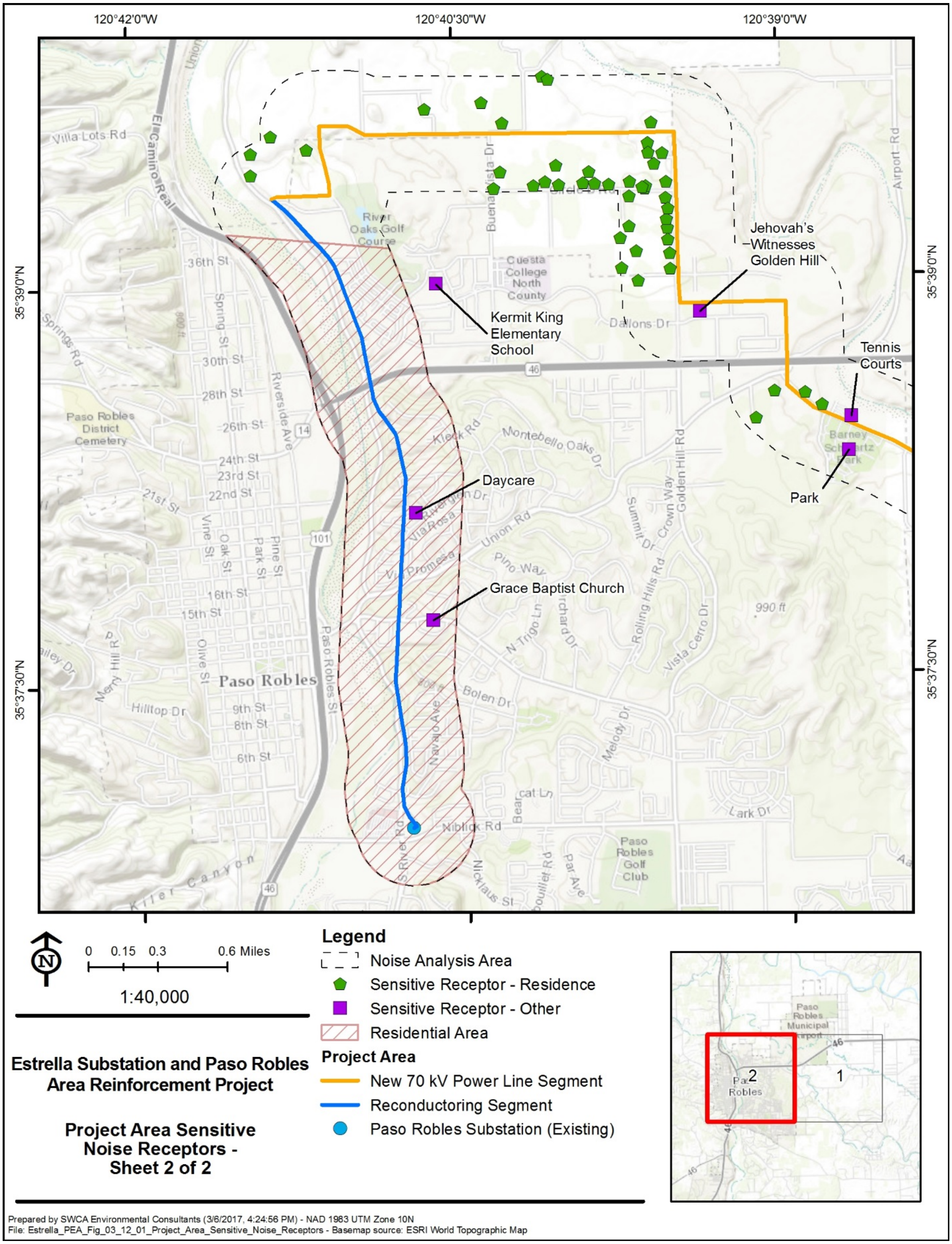
Type	Distance from Project Area	Direction from Project Area
Residence	Within 265 feet	Southwest of Estrella Substation
Residence	Within 1,320 feet	Southeast of Estrella Substation
2 Residences	Within 2,300 feet	Northwest of Estrella Substation
Residence	1,100 feet	East of Estrella Substation
2 Residences	20 feet	North of the new 70 kV power line segment
2 Residences	100 feet	North of the new 70 kV power line segment
10+ Residences	Within 200 feet	Along the new 70 kV power line segment
10+ Residences	Within 500 feet	Along the new 70 kV power line segment
15+ Residences	Within 1,000 feet	Along the new 70 kV power line segment
10+ Residences	Within 1,500 feet	Along the new 70 kV power line segment
1 Residence	1,600 feet	Along the new 70 kV power line segment
Jehovah's Witnesses Golden Hill	165 feet	South of new 70 kV power line segment in Paso Robles
Paso Robles Swim and Tennis Club	50 feet	North of the new 70 kV power line segment
Barney Schwartz Park	80 feet	Southwest of the new 70 kV power line segment
River Oaks Golf Course	1,320 feet	East of the reconductoring segment
Tots Landing Daycare	265 feet	East of the reconductoring segment
Grace Baptist Church	790 feet	East of the reconductoring segment
Numerous Residences	<50 feet	Along the reconductoring segment (too numerous to pinpoint)

Figure 3.12-1a. Project Area Sensitive Noise Receptors – Sheet 1 of 2



Prepared by SWCA Environmental Consultants (3/6/2017, 4:24:32 PM) - NAD 1983 UTM Zone 10N
File: Estrella_PEA_Fig_03_12_01_Project_Area_Sensitive_Noise_Receptors - Basemap source: ESRI World Topographic Map

Figure 3.12-1b. Project Area Sensitive Noise Receptors – Sheet 2 of 2



The closest sensitive receptor to Estrella Substation is a residence 265 feet southwest of the substation boundary. The closest sensitive receptor to the new 70 kV power line segment is a tennis court complex associated with Paso Robles Swim and Tennis Club located 50 feet north of the new 70 kV power line segment. Because the reconductoring segment passes through an existing residential area, there are numerous sensitive receptors (residences) that the reconductoring segment will either be adjacent to or span over. The closest school to the project is Kermit King Elementary; however, the school is located over 0.3 mile east of the reconductoring segment.

3.12.3.3 Airports and Air Strips Noise

The northernmost portion of the power line route is located 1 mile southwest of the Paso Robles Municipal Airport in Paso Robles. The alignment crosses into the Safety Zone 6, 5, 4, and 3 boundaries of the Paso Robles Municipal Airport Land Use Plan (ALUP; County of San Luis Obispo Airport Land Use Commission 1977). According to Figure 2 of the ALUP, which depicts airport noise contours, a portion of the power line route falls within the 55 dB noise contour at ground level, which prohibits permitting new land uses near the airport that would expose residents or workers to airport noise greater than 55 dB.

3.12.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for noise-related impacts derived from Appendix G of the CEQA Guidelines, provide APMs, and assess potential project-related construction and operational noise impacts.

3.12.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts related to noise were evaluated for each of the criteria listed in Table 3.12-1, as discussed in Section 3.12.4.3, Potential Impacts.

3.12.4.2 Applicant-Proposed Measures

The project proponents will implement the following APMs.

Table 3.12-7. Applicant Proposed Measures for Noise

APM No.	Description
	NOISE
APM NOI-1	**<u>Construction Schedule Limits</u>.** The project proponents will limit grading, scraping, augering, and pole installation to 7:00 a.m. to 7:00 p.m. daily. Exceptions for work outside of these hours will follow the notification requirements outlined in APM AG-1.
APM NOI-2	**<u>Noise Minimization.</u>** The project will incorporate various measures to reduce construction related noise where feasible using the following methods: • Construction equipment will use noise reduction devices that are no less effective than those originally installed by the manufacturer. • Stationary equipment used during construction will be located as far as practical from sensitive noise receptors. "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design—compressors have "quiet" models) will be used during construction when reasonably available.

3.12.4.3 Potential Impacts

Project impacts related to noise were evaluated against the CEQA significance criteria and are discussed below. This section evaluates potential project impacts during the construction phase and the operation and maintenance phase.

The project includes construction and operation of Estrella Substation, encompassing a new 230 kV substation, a new 70 kV substation, and a new 230 kV transmission interconnection to the existing 230 kV transmission line on an approximately 15-acre site, as discussed in Chapter 2.0, Project Description. The project also includes construction and operation of approximately 7 miles of new 70 kV double-circuit power line and an approximately 3-mile-long reconductoring segment.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The estimated noise impacts of this future project, to the extent they are known at this time, are briefly discussed below where the analysis would differ from that of the project.

Noise-a: Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? *(Less than Significant)*

Construction

Estrella Substation

Although the project is exempt from local land use and zoning regulations, the project will nevertheless be consistent with local noise ordinances. In San Luis Obispo County, construction noise is exempt from the noise standards defined in the County Noise Ordinance, provided that such activities take place from 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday and Sunday. Section 9.07.030(i) of Ordinance No. 466 N.S. of the City's Municipal Code states that construction or land grading that uses equipment in such a manner as to be plainly audible at a distance of 50 feet from the building must only operate between the hours of 7:00 a.m. and 7:00 p.m. Construction of Estrella Substation will be conducted within these hours.

Estimates of noise from the construction of Estrella Substation are based on a roster of the maximum amount of construction equipment used at the station on a given day. Table 3.12-8, Estrella Substation Construction Equipment Roster Used for Noise Analysis, shows the construction equipment that has been analyzed from the center of the substation construction area to the nearest residence (for ease of calculation, all equipment is assumed to be operating at this single point). The RCNM has noise levels for various types of equipment pre-programmed into the software; therefore, the noise level associated with the equipment is typical for the equipment type and not based on any specific make or model.

Table 3.12-8. Estrella Substation Construction Equipment Roster Used for Noise Analysis

Equipment Type	Quantity	Typical Maximum Noise Levels (dBA at 50 feet)
Bulldozer	4	82
Hole Digger	2	84
Crane	4	81
Bucket Truck	2	75
Forklift	3	79
Grader	1	85
2-Ton Truck	2	77
Water Truck	3	75
Pickup Truck	8	75

Table 3.12-8. Estrella Substation Construction Equipment Roster Used for Noise Analysis

Equipment Type	Quantity	Typical Maximum Noise Levels (dBA at 50 feet)
Flat Bed Truck	2	74
Bobcat	1	81
Line Truck	2	75
Trencher	2	81

The RCNM assumes that the maximum sound level for the project (L_{max}) is the maximum sound level for the loudest piece of equipment. L_{max} at the nearest residence will be approximately 63.7 dBA, and at 2,640 feet it will attenuate to 50.5 dBA. The approximate noise generated by the construction equipment used at Estrella Substation has been conservatively calculated based on the maximum amount of construction equipment that will be used at Estrella Substation at one time, and not taking into account further attenuation due to atmospheric interference, intervening structures, or any reductions after implementation of APMs. Results of the RCNM construction noise calculations are given in Table 3.12-9, Calculated Noise Level at Estrella Substation Due to Construction.

Table 3.12-9. Calculated Noise Levels at Estrella Substation Due to Construction

	Calculated L_{max} (dBA)	Calculated L_{eq} Total (dBA)	Community Noise Level (dBA)	
			L_{day}	L_{night}
Ambient Baseline Noise Level [1]	--	--	49.4	43.6
Noise Level at Nearest Residence [2]	63.7	66.7	66.8	66.7
Noise Level Attenuated to 2,640 feet (0.5 mile)	50.5	55.6	56.5	55.9

[1] Baseline Noise Level obtained as average of the four noise monitoring location results from the Estrella Substation Baseline Community Noise Survey, located in Appendix K.

[2] A seasonal worker residence is the closest residence to Estrella Substation. The residence is located approximately 584 feet from the center of the 70 kV substation and approximately 1,144 feet from the center of the 230 kV substation,

In San Luis Obispo County, construction noise is exempt from the noise standards defined in the County Noise Ordinance, provided that such activities take place from 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday and Sunday. Section 9.07.030(i) of Ordinance No. 466 N.S. of the City's Municipal Code states that construction or land grading that uses equipment in such a manner as to be plainly audible at a distance of 50 feet from the building must only operate between the hours of 7:00 a.m. and 7:00 p.m.

The project is exempt from local land use and zoning regulations and discretionary permitting, including local noise ordinances. Per APM NOI-1 (Construction Schedule Limits), construction will be conducted within the hours as set forth by the County Noise Ordinance and the City Code. However, it is possible that minimal construction activity will be required during nighttime hours. For example, cut-over activities are generally conducted at night when electricity loads are at their lowest levels. Should work outside daylight hours be necessary, neighbors will be appropriately notified in advance and measures will be taken to minimize disturbance per APM AG-1 (Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities). The project proponents will also implement APM NOI-2 (Noise Minimization). Therefore, the project will not expose persons to or generate noise levels in excess of applicable standards. Impacts from the construction of Estrella Substation will be less than significant.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Construction of future distribution facilities will be a substantially smaller project. Pursuant to CPUC General Order No. 131-D, local noise regulations are preempted by state law. For this reason, construction of the future distribution facilities is exempt from the County Noise Ordinance and the City Code. Based on the anticipated construction equipment, the L_{max} at the nearest residence (approximately 584 feet from the center of the 70 kV substation) during construction will be approximately 60.3 dBA, and at 2,641 feet (0.5 mile), it will attenuate to 48.7 dBA. Noise levels for future construction will be less than for construction of the original project, which will be approximately 63.7 dBA at the nearest residence. Construction of the future 70/21 kV transformer and other 21 kV distribution facilities will not expose persons to or generate noise levels in excess of applicable standards. Impacts from construction will be less than significant.

Power Line Route

Estimates of noise from the construction of the power line route are based on a roster of maximum amount of construction equipment used at one time in one place to construct the power line. Table 3.12-10, Power Line Construction Equipment Roster Used for Noise Analysis, shows the construction equipment that has been analyzed (for ease of calculation, all equipment is assumed to be operating at this single point). The RCNM has noise levels for various types of equipment pre-programmed into the software; therefore, the noise level associated with the equipment is typical for the equipment type and not based on any specific make or model.

Table 3.12-10. Power Line Construction Equipment Roster Used for Noise Analysis

Equipment Type	Quantity	Typical Maximum Noise Levels (dBA at 50 feet)
Backhoe	2	78
Concrete Truck	3	79
Tractor Trailer	1	84

Table 3.12-10. Power Line Construction Equipment Roster Used for Noise Analysis

Equipment Type	Quantity	Typical Maximum Noise Levels (dBA at 50 feet)
Pickup Truck	3	75
Crane	1	81
Utility Truck	1	75
Water Truck	2	75
Bucket Truck	3	75
Line Truck	3	75
2-Ton Truck	3	77

The RCNM assumes that the L_{max} is the maximum sound level for the loudest piece of equipment. L_{max} at a distance of 50 feet from the point source will be 84.1 dBA, and at 1,312 feet, it will attenuate to 55.6 dBA. The approximate noise generated by the construction equipment used at the power line has been conservatively calculated based on the maximum amount of construction equipment that will be used in constructing or reconductoring the power line at one time, and not taking into account further attenuation due to atmospheric interference, intervening structures, or implementation of any APMs. The results of the RCNM construction noise calculations are given in Table 3.12-11, Calculated Noise Levels Due to Power Line Construction.

Table 3.12-11. Calculated Noise Levels Due to Power Line Construction

	Calculated L_{max} (dBA)	Calculated L_{eq} Total (dBA)	Community Noise Level (dBA)	
			L_{day}	L_{night}
Ambient Baseline Noise Level	--	--	49.4	43.6
Noise Level Attenuated to Nearest Sensitive Receptor (50 feet)	84.1	86.5	86.5	86.5
Attenuated to 1,312 feet (0.25 mile)	55.6	58.0	58.6	58.2

As described in Chapter 2.0, Project Description, helicopters may be used to install poles and replace transmission towers when the use of cranes is not feasible. A large single-rotor helicopter such as the Bell 214 produces a maximum sound level of about 79 dBA at a distance of 500 feet under level flight conditions (Nelson 1987). This corresponds to a sound level of about 93 dBA at 100 feet. A small single-rotor helicopter such as the Hughes 500 produces a maximum sound level of 75 dBA at a distance of 500 feet under level flight conditions (Nelson 1987). This corresponds to a sound level of about 89 dBA at 100 feet. Helicopters could produce noise in the range of 89 to 93 dBA in the vicinity of residences that are located as close as 100 feet to helicopter landing zones. Noise from helicopters operating above pole installation locations could be as close as about 250 feet to residences. At this distance, helicopter noise levels could be in the range of about 83 to 87 dBA.

With land-based construction activities located as close as 50 feet to noise-sensitive receptors, land-based construction noise levels could be as high as 84 dBA at these locations. However, this construction is linear, occurring only for short periods in one location, and the County exempts construction noise from local noise standards, provided that such activities take place from 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday and Sunday. Section 9.07.030(i) of Ordinance No. 466 N.S. of the City's Municipal Code states that construction or land grading that uses equipment in such a manner as to be plainly audible at a distance of 50 feet from the building must only operate between the hours of 7:00 a.m. and 7:00 p.m.

Per APM NOI-1 (Construction Schedule Limits), construction will be conducted within the hours as set forth by the County Noise Ordinance and the City Code. However, it is possible that minimal construction activity will be required during nighttime hours. Should work outside daylight hours be necessary, neighbors will be appropriately notified in advance and measures will be taken to minimize disturbance per APM AG-1 (Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities). The project proponents will also implement APMs NOI-2 (Noise Minimization). Impacts from the construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

The main source of noise will be the stationary electrical equipment operating at Estrella Substation. Noise at any specific receptor is dominated by the closest and loudest equipment. The loudest pieces of noise-generating equipment at Estrella Substation are the 230/70 kV transformer and the HVAC units at each control building. Transformer noise generally contains a pure-tone or "hum" component, as well as noise associated with cooling fans and oil pumps that operate periodically. The 230/70 kV transformer L_{eq} is generally equivalent to 65 dBA at 15 feet. The HVAC units each generate approximately 70 dBA of noise at 5 feet. The sound level of a noise source decreases as it propagates away from its source due to attenuation.

The decrease in sound level due to point source sound divergence attenuation is expressed as follows:

$$Leq_2 = Leq_1 - 20log_{10}\left(\frac{R_2}{R_1}\right), where$$

L_{eq1} is the sound level measured at distance R_1 and L_{eq2} is the sound level at distance R_2. Using this equation, the sound levels were calculated at various distances for the three point sources of noise: the 230/70 kV transformer and the two HVAC units. Sound levels at various distances are provided for each point source of noise generation in Table 3.12-12, Estrella Substation Equipment Noise Levels with Distance.

Table 3.12-12. Estrella Substation Equipment Noise Levels with Distance

Distance from Source (feet)	230/70 kV Transformer L_{eq} (dBA)	HVAC Unit at 230 kV Substation Control Building L_{eq} (dBA)	HVAC Unit at 70 kV Substation Control Building L_{eq} (dBA)
5	--	70.0	70.0
15	65.0	60.5	60.5
30	59.0	54.4	54.4
60	53.0	48.4	48.4
120	46.9	42.4	42.4
240	40.9	36.4	36.4
480	34.9	30.4	30.4
687	31.8	27.3	27.3 [1]
932	29.1 [1]	24.6	24.6
960	28.9	24.3	24.3
1,022	28.3	23.8 [1]	23.8
2,640 (0.5 mile)	20.1	15.6	15.6

[1] This is the sound level for the source at the nearest residence.

The 230/70 kV transformer is approximately 932 feet from the nearest residence at the south end of Estrella Substation. The HVAC units are assumed to be in the center of each control building. The HVAC unit located at the control building at the 230 kV substation is approximately 1,022 feet from the nearest residence at the south end of Estrella Substation. The HVAC unit located at the control building at the 70 kV substation is approximately 687 feet from the nearest residence at the south end of Estrella Substation.

To estimate the sound level at the nearest residence, the sound levels at the nearest residence for each source are combined per the following equation:

$$Total\ Leq = 10\ x$$
$$log_{10}\left(10^{Leq_1/10} + 10^{Leq_2/10} + 10^{Leq_3/10} + \cdots + 10^{Leq_n/10}\right), where$$

L_{eq1}, L_{eq2} L_{eq3}, …, L_{eqn}, are the individual sound power levels of the individual sources that combine at a particular location, and Total L_{eq} is the cumulative sound power level at that particular location of the multiple point sources.

The cumulative sound levels for the noise-generating equipment at Estrella Substation estimated at the nearest residence are provided in Table 3.12-13, Estrella Substation Combined-Source Sound Levels.

Table 3.12-13. Estrella Substation Combined-Source Sound Levels

Combined-Source Sound Level Location	Combined-Source Sound Level L_{eq} (dBA)	Community Noise Level (dBA) (Combined-Source Sound Level plus Baseline Noise Levels)	
		L_{day}	L_{night}
Nearest Residence to Each Source	32.0	49.7 [1]	45.7 [1]

[1]L_{day} and L_{night} were calculated by adding the combined-source sound level at the nearest residence to the Baseline Noise Monitoring Location 1 results, as this monitoring location is closest to the nearest residence and is therefore most representative of the existing noise level at the residence.

Note: Baseline Noise Levels obtained from the Estrella Substation Baseline Community Noise Survey, included as Appendix K.

The cumulative sound level at the residence nearest Estrella Substation was calculated and is shown in Table 3.12-13. Operation of the 230/70 kV transformer and the two HVAC units at the control buildings at Estrella Substation will cause an increase of 0.1 dBA in the daytime ambient noise level as measured at Location 1 (noted in Table 3.12-5) based on cumulative sound levels calculated at the residence nearest Estrella Substation. Operation of this equipment at Estrella Substation will also cause an increase of 0.2 dBA in the nighttime ambient noise level as measured at Location 1 (noted in Table 3.12-5) based on cumulative sound levels calculated at the residence nearest Estrella Substation. As discussed in Section 3.12.1.1, Fundamentals of Noise, a 3-dB change in sound level is considered to be a barely noticeable difference.

The *County of San Luis Obispo Noise Ordinance* (County of San Luis Obispo 1992b) states that, "in the event the measured ambient noise level exceeds the applicable exterior noise level standard (see Table 3.12-4), the standard shall be adjusted so as to equal the ambient noise level plus one dB." The ambient nighttime noise level as measured in the Estrella Substation Baseline Community Noise Survey (Appendix K) at noise monitoring location 1 (the closest monitor to the residence) is 45.5 dB. The maximum allowed exterior noise level standard is then adjusted to 46.5 dB. Consequently, operation of Estrella Substation will not exceed the adjusted maximum allowed exterior noise level standard. The project will not expose persons to or generate noise levels in excess of applicable standards. Noise impacts from operation of Estrella Substation will be less than significant.

As described in Chapter 2, Project Description, monthly inspections will be performed on both the 70 kV and the 230 kV substations to assess each required piece of equipment and ensure that no obvious abnormalities exist to the extent possible without taking the substation or transmission line(s) out of service. It is anticipated that periodically, more invasive checks, calibrations, and maintenance on the substation's components will be performed. All maintenance-related activity will be conducted by a small specialized team during daytime hours, and are not expected to result in noise generating activities. As a result, noise impacts from substation maintenance activities will not expose persons to generation of noise levels in excess of applicable standards and will be less than significant.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The loudest pieces of noise-generating equipment at Estrella Substation with future distribution will be the 70/21 kV transformer, 230/70 kV transformer, and the HVAC units at each control building. Transformer noise generally contains a pure-tone or "hum" component, as well as noise associated with cooling fans and oil pumps that operate periodically. With all fans in operation, the 70/21 kV transformer generates approximately 64 dBA of noise at 3 feet, the 230/70 kV transformer generates approximately 65 dBA at 15 feet, and the HVAC units each generate approximately 70 dBA of noise at 5 feet. The sound level of a noise source decreases as it propagates away from its source due to attenuation.

To estimate the sound level at the nearest residence, the sound levels at the nearest residence for each source are combined. The 70/21 kV transformer will be located approximately 560 feet from the nearest residence at the south end of Estrella Substation, which is closer than the noisier 230/70 kV transformer. However, even with the additional 70/21 kV transformer, there will be essentially no audible increase from the original project based on cumulative sound levels calculated at the residence. Logarithmically adding noise sources at Estrella Substation with the additional 70/21 kV future distribution transformer results in a L_{eq} of approximately 32 dBA at the nearest residence, which is the same as predicted for the original project. Including existing background noise, noise levels at the residence will also be the same—49.7 L_{day} and 45.7 L_{night}. This is a predicted increase of 0.1 dBA during the day and 0.2 dBA during the night. Since the existing measured background noise levels exceed the local noise standards, 1 dBA is added to the measured L_{day} and L_{night} at the location closest to the residence (Location 1) to get adjusted noise level standards of 50.6 dBA and 46.5 dBA. Therefore, operation of Estrella Substation with future distribution will not exceed the existing adjusted maximum allowed exterior noise level standard. Noise impacts will be less than significant.

Power Line Route

Corona noise is not an issue for transmission and power lines rated at 230 kV and lower voltages. Furthermore, portions of the new 70 kV power line segment run parallel to an existing 500 kV transmission line. Corona noise from the 500 kV transmission line will dominate any corona noise from the new 70 kV power line segment. Routine inspection and maintenance of the power line route will be periodic, infrequent, and isolated. There is no other noise associated with power line operation. Therefore, noise impacts from power line operation and maintenance will be less than significant.

Noise-b: Expose persons to or generation of excessive groundborne vibration or groundborne noise levels? *(Less than Significant)*

Construction

Estrella Substation

Construction activities (e.g., ground-disturbing activities, including grading and movement of heavy construction equipment) may generate localized groundborne vibration and noise. Blasting or pile-driving activities are not anticipated in the construction of Estrella Substation. Generally, construction-related groundborne vibration is not expected to extend beyond 25 feet from the generating source, and no sensitive receptors are located within 25 feet of areas of construction. Further, no sensitive receptors are located within 25 feet of areas of construction. As a result, no vibration-related impacts to sensitive receptors, such as local residents, will occur.

Power Line Route

Construction activities (e.g., ground-disturbing activities, including grading and movement of heavy construction equipment) may generate localized groundborne vibration and noise. Blasting or pile-driving activities are not anticipated in the construction of the power line route. Generally, construction-related groundborne vibration is not expected to extend beyond 25 feet from the generating source. However, several residences along the reconductoring segment are located within 25 feet of areas of construction. Construction duration in these areas would be short term and temporary, lasting 1–2 days. Thus, impacts will be less than significant.

Operation and Maintenance

Equipment associated with operation and maintenance of Estrella Substation and the power line route will not produce any groundborne noise or vibration. As a result, no impacts associated with operation and maintenance of Estrella Substation and the power line route will occur.

Noise-c: Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? *(Less than Significant)*

Noise levels generated by Estrella Substation and the power line will be indistinguishable from ambient noise levels. New permanent noise sources will result in an increase of less than 0.2 dBA to the existing noise environment, as shown in Table 3.12-5, Summary of Ambient Sound Measurements. A substantial increase in ambient noise levels is typically defined as a 10 dBA increase to the existing environment. Therefore, the project will not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Impacts will be less than significant.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. As described under Noise-a, even with the additional 70/21 kV transformer, there will be essentially no audible increase from the original project based on cumulative sound levels calculated at the residence. Noise impacts will be less than significant.

Noise-d: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? *(Less than Significant)*

Estrella Substation

Per the RCNM model run, noise generated by construction equipment is shown in Table 3.12-9. During construction of Estrella Substation, there will be an approximately 17.4 dBA increase in ambient daytime noise levels at the residence nearest the substation. At the nearest sensitive receptor, noise levels could reach 67 dBA, depending on the equipment being used. This level is comparable to listening to living room music.

These noise levels represent a conservative calculation based on the maximum pieces of construction equipment that will be used at Estrella Substation concurrently during construction. Additionally, the noise levels do not take into account further attenuation due to atmospheric interference, intervening structures, or seasonal noises common to the area, such as farm machinery and crop dusters. Further, the increase in the ambient noise level in the project vicinity during construction will be short term, intermittent, and temporary, resulting in less-than-significant impacts.

It is possible that minimal construction activity will be required during nighttime hours. Should this be necessary, neighbors will be notified in advance and appropriate measures taken to minimize disturbance per APM AG-1 (Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities). Implementation of APM AG-1, APM NOI-1 (Construction Schedule Limits), and APM NOI-2 (Noise Minimization) will further minimize already less than-significant impacts from construction equipment noise.

Power Line Route

Construction of the power line route will not result in a substantial temporary increase in ambient noise levels. As shown in Table 3.12-11, at a distance of 50 feet from power line construction, the sound level will be approximately 86.5 dBA. Any increases in ambient noise levels in the project vicinity during construction will be short term, intermittent, and temporary, resulting in less-than-significant impacts. Implementation of APM NOI-2 (Noise Minimization) will further minimize already less-than-significant impacts.

Noise-e: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? *(Less than Significant)*

Construction

Estrella Substation

Construction of Estrella Substation will occur at a distance greater than 2 miles from a public airport. As a result, no impact will occur.

Power Line Route

The northernmost portion of the power line route is located 1 mile southwest of the Paso Robles Municipal Airport in Paso Robles. The alignment crosses into the Safety Zone 6, 5, 4, and 3 boundaries of the Paso Robles Municipal Airport ALUP. According to Figure 2 of the ALUP, which depicts airport noise contours, a portion of the power line route falls within the 55 dB noise contour at ground level. Construction workers working along the power line route will not be exposed to excessive noise levels from airport operations. Any increases in noise levels in the project vicinity during construction will be minimal, short term, intermittent, and temporary, and would not expose people residing or working in the project area to excessive noise levels. Therefore, impacts associated with construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will occur at a distance greater than 2 miles from a public airport. As a result, no impact will occur.

Power Line Route

The northernmost portion of the power line route is located 1 mile southwest of the Paso Robles Municipal Airport in Paso Robles. The alignment crosses into the Safety Zone 6, 5, 4, and 3 boundaries of the Paso Robles Municipal Airport ALUP. According to Figure 2 of the ALUP, which depicts airport noise contours, a portion of the power line route falls within the 55 dB noise contour at ground level. Project maintenance will not expose people residing or working in the area to excessive noise levels from airport operations.

Power lines 230 kV and lower are generally free of conductor corona-type radio noise. There is no other noise associated with power line operation. Therefore, power line operation will not result in any increase to current ambient noise levels and there will be no impact from the power line.

Noise-f: For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? *(No Impact)*

There are no private airstrips located within 2 miles of the project; therefore, no impact will occur.

3.12.5 References

City of El Paso de Robles. 1982. *Ordinance No. 466 N.S. – An Ordinance Adding Chapter 9.07 to the Municipal Code of the City of El Paso de Robles*. Adopted May 4, 1982. Online: http://www.prcity.com/government/citycouncil/ordinances/1982_CC_ORD_466.PDF. Accessed August 1, 2016.

County of San Luis Obispo. 1992a. *County of San Luis Obispo General Plan Noise Element, Part 1 Policy Document*. Adopted May 5, 1992. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Noise+Element.pdf. Accessed August 1, 2016.

____. 1992b. *San Luis Obispo County Noise Ordinance (Ordinance No. 2545)*. Online: https://www.municode.com/library/ca/san_luis_obispo_county/codes/county_code. Amended 1992. Accessed on August 1, 2016.

County of San Luis Obispo Airport Land Use Commission. November 1977. *Airport Land Use Plan for the Paso Robles Municipal Airport*. As amended through May 16, 2007. Online: http://www.prcity.com/government/departments/publicworks/airport/pdf/ALUP/ALUPdocument.pdf. Accessed August 1, 2016.

Cowan, James P. 1993. *Handbook of Environmental Acoustics*. John Wiley & Sons, Inc. December 1993.

Federal Highway Administration (FHWA). 2006. *FHWA Roadway Construction Noise Model User's Guide*. Washington, DC: U.S. Department of Transportation. Online: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf. Accessed August 1, 2016.

International Organization for Standardization (ISO). 1996. *ISO 9613-2: Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation*. December 2006.

Nelson, P.M. 1987. *Transportation Noise Reference Book*. London: Butterworths & Co.

New York Department of Environmental Conservation. 2001. *Assessing and Mitigating Noise Impacts*. February 2001. Online: http://www.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf. Accessed August 1, 2106.

U.S. Department of Transportation. 2012. *High-Speed Ground Transportation Noise and Vibration Impact Assessment*. DOT/FRA/ORD-12/15. October 24, 2012. Online: https://www.fra.dot.gov/eLib/Details/L04090. Accessed August 1, 2016.

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3.13 POPULATION AND HOUSING

3.13.1 Introduction

This section describes existing conditions and potential impacts on population and housing as a result of project construction, operation, and maintenance. The analysis concludes that the project will have no impact on population and housing. The project's potential effects on population and housing were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.13-1, CEQA Checklist for Population and Housing, and discussed in more detail in Section 3.13.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.13-1. CEQA Checklist for Population and Housing

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING ***Would the project:***				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.13.2 Regulatory Background and Methodology

3.13.2.1 Regulatory Background

No regulatory background information is relevant to addressing project-related impacts on population and housing.

3.13.2.2 Methodology

To evaluate potential effects on population and housing resources, the *City of El Paso de Robles General Plan Housing Element* (City of El Paso de Robles 2014), *County of San Luis Obispo General Plan Housing Element* (County of San Luis Obispo 2014a), State of California Employment Development Department (EDD) Labor Market Information (LMI) Division (EDD LMI 2016), and U.S. Census Bureau data (U.S. Census Bureau 2016) were reviewed. In addition, aerial photos of the proposed substation location and power line route were reviewed.

3.13.3 Environmental Setting

3.13.3.1 Population

The project is located in northern San Luis Obispo County, which had a total county population of 269,637 in 2010. Total population in unincorporated areas of the county was 121,330 (approximately 45% of the total county population). The average annual growth rate for the county between 2000 and 2010 was just under 1%. Unincorporated areas of the county grew one-third as fast, at only 0.3% per year (U.S. Census Bureau 2016; County of San Luis Obispo 2014a).

Portions of the project are located within Paso Robles. The city's total population in 2010 was 29,793. Between 2000 and 2010, the city's population increased by 23%, with most growth occurring east of Salinas River. Residential land uses make up the single largest land use category in the city, comprising 4,352 acres and approximately 39% of the city's total acreage.

3.13.3.2 Housing

The pace of new home construction in Paso Robles was high between 2000 and 2006, with an average of 416 building permits issued for new residential units per year during this time. However, building has since slowed and, based on the city's current expected build-out projections through 2045, the City of El Paso de Robles (City) anticipates adding 912 units by the end of 2019, or an average of 156 units per year. In 2010, there were 11,426 housing units in the city, with a vacancy rate of 5% (U.S. Census Bureau 2016; City of El Paso de Robles 2014). Between December 31, 2014, and August 31, 2015, a total of 31 new residential units were completed in the city. Permits for an additional 37 units were issued during that time period and there were also pending applications for an additional 48 units (City of El Paso de Robles 2015).

There are over 20 hotels/motels spread throughout the city, as well as over 30 bed and breakfasts, three RV resorts, and dozens of other vacation rentals. Rental vacancy rates in the city in 2010 were 1.7%; rental vacancy rates in 2013 were approximately 1.6% (City of El Paso de Robles 2014).

3.13.3.3 Workforce

The project is located within the San Luis Obispo-Paso Robles-Arroyo Grande Metropolitan Statistical Area (MSA), in San Luis Obispo County. A MSA is a geographical region with a relatively high population density at its core and close economic ties throughout the area. In May 2016, the project area MSA consisted of a labor force of 124,400 individuals, including a workforce of 6,900 in the Mining, Logging, and Construction and 21,900 in the Trade, Transportation, and Utilities industry sectors (EDD LMI 2016).

3.13.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts on population and housing derived from Appendix G of the CEQA Guidelines, and assesses potential project-related construction and operational impacts. Because the project will have no impact on population and housing, APMs have not been included for this section.

3.13.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts on population and housing were evaluated for each of the criteria listed in Table 3.13-1, as discussed in Section 3.13.4.3, Potential Impacts.

3.13.4.2 Applicant-Proposed Measures

No APMs are suggested to further reduce already less-than-significant impacts.

3.13.4.3 Potential Impacts

Project impacts on population and housing were evaluated against the CEQA significance criteria, as discussed below. This section evaluates potential project impacts from both construction of the project and ongoing operation and maintenance. As discussed below, no significant impacts will occur.

As described in Chapter 2.0, Project Description, the project includes construction of Estrella Substation, construction of approximately 7 miles of new 70 kV power line, and reconductoring of 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to population and housing are anticipated at this time as a result of this future project.

Impact Population-a: Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? *(No Impact)*

Construction

Estrella Substation

Construction of Estrella Substation is expected to require as many as 12 to 15 additional construction personnel at the peak of construction activities. Construction workers are expected to consist of construction contractors, laborers, and management employees. Additional visitors may also be present during construction activities, including engineering contractors and government inspectors, who will visit the site periodically.

Based on the available workforce in the county, it is anticipated that some workers may be employed from the existing regional labor pool; however, certain construction activities may require non-local workers with specialized skills. Paso Robles and the surrounding areas are served by numerous hotels and motels that will be adequate to provide short-term lodging needs for any non-local workers during the approximately 7-month construction period. Due to the availability of a regional workforce as well as lodging options for non-local workers, the project will not cause a substantial increase in population growth and no impacts related to population growth will occur.

Power Line Route

Construction of the 70 kV power line route is expected to require as many as 30 additional construction personnel at the peak of construction activities. Similar to the substation work, construction workers are expected to consist of construction contractors, laborers, and management employees. Additional visitors may also be present during construction activities, including engineering contractors and government inspectors, who will visit the site periodically.

As described above, due to the availability of a regional workforce as well as lodging options for non-local workers, the project will not cause a substantial increase in population growth and no impacts related to population growth will occur.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will include regular inspections by the proponents' existing local maintenance and operations groups as part of their current substation operation and maintenance activities, as well as annual inspections that include checks, calibration, and maintenance of the substation components. No additional staff will be required on-site to operate and maintain the project after construction is complete.

For the 70 kV substation, a typical Supervisory Control and Data Acquisition (SCADA) system will be used by PG&E to remotely monitor equipment at the substation, with existing local maintenance and operations staff performing inspection, patrol, and maintenance duties as needed for the 70 kV substation. The 230 kV substation also will be monitored and operated using a SCADA with inspections occurring on a monthly basis by a NEET West maintenance team, typically consisting of two to three staff.

The project's objective is to provide additional reliability for existing customers in the local vicinity. As such, the project will improve reliability of electric service for a large section of San Luis Obispo County already served by PG&E. Further, the project will not extend new power lines or other infrastructure into areas not already served by PG&E, nor will the project facilitate growth that has not already been accounted for in long-range planning documents. Therefore, while the project will strengthen the reliability of the existing power infrastructure, the purpose is to better serve existing customers in the area by preventing service interruptions. Because the project does not propose any use that will directly or indirectly induce population growth, such as the development of new housing units or recreational, commercial, or retail uses that may stimulate population growth in the area, no direct or indirect impacts to population growth will occur.

Power Line Route

Operation and maintenance of the power line route will include regular inspection and patrols by an inspector from existing local PG&E staff as part of the current detailed inspection and aerial patrols. A detailed inspection of the power lines will be performed by staff every 2 years (wood structures), with an air patrol inspection performed in between. For lines constructed on steel structures, detailed inspections will occur every 5 years. PG&E's existing local maintenance and operations group will assume inspection, patrol, and maintenance duties as needed. No additional staff will be required to operate and maintain the project after construction is complete.

The primary objective of the project is to provide additional reliability for existing customers in the project vicinity. As such, the project will improve reliability of electric service for a large section of San Luis Obispo County already served by PG&E. Further, the project will not extend new power lines or other infrastructure into areas not already served by PG&E, nor will the project facilitate growth that has not already been accounted for in long-range planning documents.

The project does not propose any use that will directly or indirectly induce population growth, such as the development of new housing units or recreational, commercial, or retail uses that may stimulate population growth in the area. As a result, no direct or indirect impacts to population growth will occur.

Impact Population-b: Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? *(No Impact)*

There are no residences within the proposed area of disturbance. Construction and operation of the project will not displace existing housing and will not require the development of replacement housing elsewhere. Therefore, no impacts related to displaced housing will occur.

Impact Population-c: Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? *(No Impact)*

The project will include installation of a substation within an existing vineyard and development of new and reconductored power lines. Construction and operation of the project will not displace any habitable structures or people and will not require the development of replacement housing elsewhere. Therefore, no impacts related to displaced people will occur.

3.13.5 References

California Employment Development Department Labor Market Information Division (EDD LMI). 2016. San Luis Obispo- Paso Robles-Arroyo Grande Metropolitan Statistical Area (MSA) (San Luis Obispo County) Industry Employment & Labor Force. Online: http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/cesReport.asp?menuchoice=ces. Accessed June 22, 2016.

City of El Paso de Robles. 2015. *City of Paso Robles Residential Activity Report*. August 2015. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/ResRpt.pdf. Accessed September 29, 2016.

____. 2014. *City of El Paso de Robles Housing Element of the General Plan*. Adopted October 2014. Online: http://www.prcity.com/government/departments/commdev/housing/pdf/HousingElement-October2014.pdf. Accessed June 22, 2016.

County of San Luis Obispo. 2014a. *Housing Element 2014–2019, County of San Luis Obispo General Plan*. Adopted June 17, 2014. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Housing+Element.pdf. Accessed June 22, 2016.

____. 2014b. *The Area Plans, County of San Luis Obispo Land Use and Circulation Elements (Part II)*. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Area+Plans/The+Area+Plans+(Inland).pdf. Accessed June 22, 2016.

U.S. Census Bureau. 2016. American FactFinder web page. Online: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed on July 13, 2016.

3.14 PUBLIC SERVICES

3.14.1 Introduction

This section describes existing conditions and potential impacts on public services as a result of construction, operation, and maintenance of the project, and concludes less-than-significant impacts will occur. Public services include fire and emergency protection, police protection, and maintenance of public facilities such as schools and parks. The project's potential effects on public services were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.14-1, CEQA Checklist for Public Services, and discussed in more detail in Section 3.14.4, Applicant-Proposed Measures and Potential Impacts.

As described in Section 3.13, Population and Housing, construction of the project is not expected to result in a substantial growth in population that will increase the demand for public services. Emergency access is discussed in Section 3.16, Transportation and Traffic. Temporary construction-related impacts on schools and parks—such as dust and noise—are discussed in Sections 3.3, Air Quality, and 3.12, Noise, respectively. Potential impacts on parks and recreational facilities are discussed in Section 3.15, Recreation.

Table 3.14-1. CEQA Checklist for Public Services

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒

Table 3.14-1. CEQA Checklist for Public Services

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.14.2 Regulatory Background and Methodology

3.14.2.1 Regulatory Background

Federal

No federal laws or regulations related to public services are applicable to the project. Public services are generally regulated by county and municipal governments based on state and national standards and guidelines.

State

Fire Protection

The California Fire Code contains regulations related to construction, maintenance of buildings, and the use of premises. Topics addressed in the code include:

- Fire hydrants
- Automatic sprinkler systems
- Fire alarm systems
- Provisions intended to protect and assist first responders
- General and specialized fire safety requirements for new and existing buildings and premises

Local

No local regulatory background information for public services is applicable to the project.

3.14.2.2 Methodology

Public services include fire and police protection, emergency services, and maintenance of public facilities such as schools and parks. The information in this section was developed through a review of local planning documents and online resources, including the *County of San Luis*

Obispo General Plan, *City of El Paso de Robles General Plan*, San Luis Obispo County Fire Department website, Paso Robles Department of Emergency Services website, CAL FIRE website, San Luis Obispo County Sheriff's Office website, Paso Robles Police Department website, and San Luis Obispo County Resource Management System reports. The impact analysis considers effects of the project on the following:

- Service levels
- Response times
- Fire protection and emergency services
- Police protection
- Schools
- Parks
- Other public facilities

3.14.3 Environmental Setting

3.14.3.1 Fire Protection and Emergency Services

Estrella Substation and the power line route are within an unincorporated Local Fire Protection Responsibility Area (LRA). Based on mapping by the California Department of Forestry and Fire Protection (CAL FIRE) and the County of San Luis Obispo (County), no portion of the substation or power line segments are located within a moderate, high, or very high fire hazard severity zone (CAL FIRE 2009; County of San Luis Obispo 2016). Emergency response times to Estrella Substation and along the power line route are 0 to 10 minutes (County of San Luis Obispo 2016). This response rate meets the County's adopted recommended appropriate response time standards in rural areas (CAL FIRE/San Luis Obispo County Fire 2012).

San Luis Obispo County

CAL FIRE, a California state agency, operates as the San Luis Obispo County Fire Department through a contract with the County, and has operated as the County Fire Department since 1930. The County Fire Department responds to emergencies and other requests for assistance, plans for and takes action to prevent emergencies and reduce their impact, coordinates regional emergency response efforts, and provides education to the communities it serves. Approximately 180 full-time state employees operate the County Fire Department, supplemented by as many as 100 state seasonal fire fighters, 300 County paid-call and reserve fire fighters, and 120 state inmate fire fighters (San Luis Obispo County Fire Department 2016).

The Operations Division provides a continuity of service related to fire control and suppression, rescue, advanced life support/emergency medical assistance, and the mitigation of hazardous materials incidents. Operations Division personnel currently includes 1 unit chief, 1 deputy chief, 3 division chiefs, 12 battalion chiefs, 50 fire captains (7 captain medics), 34 engineers (8 engineer medics), 5 firefighter II (3 firefighter II medics), 108 peak staffing and 15 off-peak firefighter I, 275 paid-call firefighters, 20 reserve firefighters, 25 lifeguards, and 25 administrative staff. Division equipment includes 14 staffed Incident Command System (ICS)

Type II engines, 12 staffed ICS Type III engines, 2 medium rescue vehicles, 4 squad vehicles, 1 ICS unstaffed hazardous materials units, 1 breathing support unit, 2 boats, 3 rescue water crafts, 3 staffed ICS Type II dozers, 10 staffed ICS Type I hand crew vehicles, 1 staffed air attack plane, and 2 staffed ICS Type III air tankers (San Luis Obispo County Fire Department 2016).

There are three County Fire Department stations near Paso Robles (refer to Figure 3.10-1, Planning Areas and Public Facilities). All of these stations will potentially respond to a fire emergency in the project area:

- The Meridian Fire Station (Station 52) is located at 4050 Branch Road, on the north side of State Route (SR-) 46 approximately 2 miles northeast of the Estrella Substation site, and was built by the County to meet the rising demand for fire protection services in the rural Paso Robles area. The Meridian fire station operates an ICS Type I fire apparatus staffed with a fire captain and a fire apparatus engineer. The Meridian station is currently supplemented with paid-call firefighters.
- The Paso Robles Fire Station (Station 30), located at 2510 Ramada Drive, is situated between Paso Robles and Templeton, approximately 2.5 miles south of Paso Robles Substation and 6 miles south of the northernmost portion of the new 70 kV power line segment. The station has a large and varied response area that generally stretches from the northern San Luis Obispo County line to Atascadero. Traditionally, the Paso Robles Fire Station is one of the busiest in the county, covering areas that include both commercial and residential structures, wineries, and large open spaces. The Paso Robles Fire Station houses two state-owned Type III wildland fire engines, as well as a County-owned Type I fire engine. Located along U.S. Highway 101 (US 101), units from the Paso Robles fire station respond with automatic aid to incidents in Paso Robles, Templeton, and Atascadero.
- The Las Tablas Fire Station (Station 35) is located at 275 Cypress Mountain Drive, on the southern edge of Lake Nacimiento, and only operates each summer during declared fire season. The station is generally located approximately 13 miles west of Paso Robles and the reconductoring segment of the power line, and 18 miles west of Estrella Substation. The Las Tablas fire station response area is considered "high risk," with a combination of thick brush, steep mountains, and little fire history. The Las Tablas fire station staff currently includes a fire captain/operator and two or three firefighters, and equipment includes a CAL FIRE ICS Type III four-wheel drive fire engine.

CAL FIRE also operates the Paso Robles Air Base at Paso Robles Municipal Airport. The air base is approximately 3.5 miles northwest of Estrella Substation and 1.5 miles northeast of the northernmost portion of the new 70 kV power line segment. CAL FIRE's air base emergency response air program includes two Grumman S-2T 1,200-gallon airtankers and two OV-10A airtactical aircraft that can reach most fires within 20 minutes from one of CAL FIRE's air bases or helicopter bases throughout the state. The airtactical planes fly overhead during a fire, directing the airtankers and helicopters to critical areas of the fire for retardant and water drops.

While both CAL FIRE airtankers and helicopters are equipped to carry fire retardant or water, the helicopters can also transport firefighters, equipment, and injured personnel. All CAL FIRE aircraft are strategically located throughout the state at airbases and helicopter bases. During high fire activity, CAL FIRE may move aircraft to better provide statewide air support (San Luis Obispo County Fire Department 2016).

Additional emergency services in the county generally include ambulance and hospital service. Private companies based throughout San Luis Obispo County provide ambulance service. Response times are generally good with the exception of the more rural portions of the county where the large area being served and the distances involved lend to poorer levels of service. The nearest hospital services are provided by Twin Cities Community Hospital in Templeton, approximately 4.7 miles southwest of Paso Robles Substation and 8.5 miles southwest of Estrella Substation (refer to Figure 3.10-1, Planning Areas and Public Facilities).

City of Paso Robles

The Paso Robles Department of Emergency Services provides a variety of services, including fire suppression, emergency medical services, rescue, hazardous materials, and other emergency response services within Paso Robles. The Department of Emergency Services has automatic and mutual aid contractual agreements with CAL FIRE and other surrounding municipal departments for emergency response to the areas in the county that they service. The department is currently staffed by 21 shift personnel (6 captains and 15 firefighters), 1 fire chief, 2 battalion chiefs, and 1 secretary (Paso Robles Department of Emergency Services 2016), and consists of three fire stations (refer to Figure 3.10-1, Planning Areas and Public Facilities):

- The Main Fire Station (Fire Station 1) is located at 900 Park Street in downtown Paso Robles, west of US 101 approximately 0.5 mile west of the reconductoring segment of the power line and approximately 5 miles west of Estrella Substation.
- The Sherwood Fire Station (Fire Station 2) is located at 235 Santa Fe Avenue, southeast of the Niblick Road/Creston Road intersection, approximately 1.3 miles east of Paso Robles Substation and 3.5 miles southwest of Estrella Substation.
- The Airport Fire Station (Fire Station 3) is located at 3125 Buena Vista Drive, at the Paso Robles Municipal Airport, approximately 3.5 miles northwest of Estrella Substation and 1.5 mile northeast of the northernmost portion of the new 70 kV power line segment.

3.14.3.2 Police Protection

San Luis Obispo County

Law enforcement and emergency services in unincorporated areas of the county are provided by the San Luis Obispo County Sheriff's Department. The sheriff station nearest to the project site is the North Station, located at 356 Main Street in Templeton, adjacent to US 101, and approximately 4 miles south of Paso Robles Substation and approximately 7 miles southwest of Estrella Substation and the northernmost portions of the new 70 kV power line segment. The North Station has the largest response area of the three Sheriff patrol stations in the county, with over 2,105 square miles to patrol and a service population of approximately 25,581 people, including Paso Robles, Templeton, Atascadero, and San Miguel (San Luis Obispo County Sheriff's Department 2014, 2016).

The California Highway Patrol (CHP) provides traffic law enforcement in the unincorporated areas of the county and on all freeways within the county, with stations located in San Luis Obispo and Templeton (refer to Figure 3.10-1, Planning Areas and Public Facilities). The Templeton station is within 10 miles of all project components; the San Luis Obispo station is located approximately 25 miles south of the project area. The CHP also provides general law enforcement services and security on all state property and facilities. They are available to respond in emergency situations, but generally do not respond to residential calls (CHP 2016a, 2016b).

City of Paso Robles

Law enforcement and police protection in Paso Robles are provided by the Paso Robles Police Department, located at 900 Park Street, on the west side of US 101 near downtown Paso Robles, approximately 0.5 mile west of the reconductoring segment of the power line and approximately 5 miles west of Estrella Substation. The Paso Robles Police Department is divided into three divisions—Administration, Operations, and Support Services.

The Chief of Police and two Lieutenants currently comprise the Administrative team. The Lieutenants report directly to the Chief and assume his duties in his absence, and primarily work as Station Commanders with one overseeing the Operation Division and one overseeing the Support Services Division. They are accountable for day-to-day operational and policy decisions as well as making recommendations to the Chief in promotional and disciplinary matters. The Operations Division consists of uniformed Patrol Officers, Reserve Officers, Community Services Officers, K9, SWAT (Special Weapons And Tactics), and Community Volunteer Patrol Program. The Support Services Division consists of the Investigations Program (Detectives), Special Enforcement Team, Communications Program, Records Program, and the Community Services Program, including the Police Activities League (PAL) and other community-based programs (Paso Robles Police Department 2016).

3.14.3.3 Schools

There are 12 school districts serving San Luis Obispo County. Countywide, several school districts have been experiencing significant enrollment declines over the past several years, particularly in elementary schools. The decline may be attributed to high housing costs in some areas of the county, which deter families with young children from locating there (County of San Luis Obispo 2015).

The Paso Robles Joint Unified School District (PRJUSD) is located in Paso Robles and serves the project area. The PRJUSD serves students in kindergarten through 12th grade and has three high schools, two middle schools, six elementary schools, and various other programs, including a Culinary Arts Academy, K–8 home school program, before and after school programs, preschools, and an after school education and safety program.

Nine PRJUSD schools are located within 0.5 mile of the power line route (refer to Figure 3.10-1, Planning Areas and Public Facilities). Paso Robles High School, Liberty High School, and Independence High School are all located adjacent to each other on Niblick Road approximately 0.5 mile east of Paso Robles Substation. Bearkitten Preschool and the Culinary Arts Academy are also located and operate out of the Paso Robles High School campus. Daniel E. Lewis

Middle School is located at 900 Creston Road, approximately 0.5 mile east of the reconductoring segment. Pat Butler Elementary School is located approximately 0.4 mile southeast of Paso Robles Substation. Georgia Brown Elementary School is located approximately 0.5 mile southwest of the location of the new 70 kV power line segment connection to the existing San Miguel-Paso Robles 70 kV power line, on the west side of Estrella River and US 101. Kermit King Elementary School is located at 700 Schoolhouse Circle, approximately 0.3 mile east of the reconductoring segment and about 0.3 mile north of SR-46.

3.14.3.4 Parks

Two parks departments or districts manage public parks in the project area. Additional information about recreational resources is provided in Section 3.15, Recreation.

San Luis Obispo County Parks and Recreation currently operates approximately 23 parks, 3 golf courses, and 8 additional "special places" (which include natural areas, coastal access, and historic facilities) in the county. Urban Regional Parks account for 644 acres, Rural Regional Parks for 11,398 acres, and mini, neighborhood, and community parks for 214 acres (County of San Luis Obispo 2006). County-operated park facilities in the project vicinity include San Miguel Park, Rios-Caledonia Adobe, Templeton Park, Chalk Mountain Golf Course, Heilmann Regional Park, Santa Margarita Community Park, and Santa Margarita Lake Community Park within the Salinas River subarea of the North County Planning Area (refer to Figure 3.10-1, Planning Areas and Public Facilities).

The City of El Paso de Robles (City) Department of Recreation Services manages 12 city and neighborhood parks and facilities (Paso Robles Recreation Services 2016). No public parks are located immediately adjacent to the project site and no parks or recreation facilities are located within 1 mile of Estrella Substation. Table 3.15-2, Recreational Resources within 1 Mile of the Project, identifies existing recreational resources located within 1 mile of the project area, including 7 public parks and 3 public school fields (refer to Figure 3.10-1, Planning Areas and Public Facilities). The project area extends within 1 mile of several City-maintained pedestrian and bicyclist trails within the city limits and, although not a public facility, the new 70 kV power line segment will also extend adjacent to the Paso Robles Sports Club.

3.14.3.5 Other Public Facilities

Other public facilities in the project vicinity include:

- Paso Robles City Library, located at 1000 Spring Street, west of Salinas River and US 101, near downtown Paso Robles, approximately 0.5 mile west of the reconductoring segment;
- Paso Robles Senior Center, located at 270 Scott Street, approximately 1.5 mile southeast of Paso Robles Substation; and,
- Paso Robles Municipal Pool, located at 534 28th Street, approximately 0.7 mile west of where the reconductoring segment will cross SR-46.

The Paso Robles City Library, Paso Robles Senior Center, and Paso Robles Municipal Pool are maintained and operated by the Paso Robles Department of Recreation Services City of El Paso de Robles 2016).

3.14.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts on public services derived from Appendix G of the CEQA Guidelines and assess potential project-related construction and operational and maintenance impacts.

3.14.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project-related impacts on public services was evaluated for each of the criteria listed in Table 3.14-1, as discussed in Section 3.14.4.3, Potential Impacts.

3.14.4.2 Applicant-Proposed Measures

No APMs are proposed that would further reduce already less-than-significant impacts.

3.14.4.3 Potential Impacts

Project impacts on public services were evaluated against CEQA significance criteria and are discussed in further detail below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to public services are anticipated at this time as a result of this future project.

Impact Public Services-a: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities? *(Less than Significant)*

Construction

Estrella Substation

Construction of Estrella Substation will result in a negligible increase in demand for local fire and police protection and emergency services to address a potential accident, vandalism, onsite fire or wildland fire in the project vicinity. These incidents are rare and such events are unlikely to increase as a result of substation construction. There are adequate police, fire, and emergency services in proximity to the project site to accommodate any minimal increase in demand. Response times are within acceptable ranges (0 to 10 minutes), and the fire severity threat is considered low in this area based on the proximity of available fire protection services, adequate accessibility of the site, and the agricultural nature of the project area. As described in Section 3.16, Transportation and Traffic, during project construction, the project proponents will coordinate any road closures, if required, with emergency service providers so that response times will not be affected. The project will not provide or include new or physically altered governmental facilities or result in a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Therefore, construction-related impacts on fire, police, and emergency services will be less than significant.

There are no schools, public parks, or other public services within 1 mile of Estrella Substation that will be directly affected by construction activities. Construction water may be obtained from existing facilities at Barney Schwartz Park; although construction workers traveling to the project area may use existing public services or amenities, this potential increase in demand will be minimal and temporary, and will not require new or altered public facilities. Construction of the project will take place over an approximately 7-month-long construction period. The project will not include development of new residential units or an expansion of infrastructure or services that will directly or indirectly increase population growth or increase demands on local schools, parks or other public services. No non-local construction workers are expected to permanently relocate to the area due to the limited nature of construction activities; therefore, no increased demand on public schools will occur. Existing parks and other public facilities are adequate to accommodate any incremental short-term increase in the use of proximate public facilities. Therefore, construction of the substation will have no impacts on schools, parks, and other public facilities.

Based on the short duration of construction activities and the minimal effect on existing public services, construction-related impacts on public services related to construction of Estrella Substation will be less than significant.

Power Line Route

The closest fire, police, and emergency facilities are located approximately 0.5 mile west of the reconductoring segment, and are separated from construction activities by intense urban development in downtown Paso Robles, US 101, and Estrella River. No direct impact on these facilities will occur. Construction of the power line route will result in a negligible increase in demand for local fire and police protection and emergency services to address an accident, vandalism, onsite fire or wildland fire in the project vicinity, or similar event. There are adequate police, fire, and emergency services in proximity to the project site to accommodate the minimal increase in demand. Response times are within acceptable ranges (0 to 10 minutes) and the fire threat is considered low in this area based on the proximity of available fire protection services and adequate accessibility of the site. As described in Section 3.16, Transportation and Traffic, during project construction, the project proponents will coordinate any road closures with the City or the County, which will then notify emergency service providers through the encroachment permit process to ensure that response times are not affected. The project will not provide or include new or physically altered governmental facilities or result in a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Therefore, construction-related impacts on fire, police, and emergency services will be less than significant.

There are nine schools within 1 mile of the power line route; the closest school is Kermit King Elementary School, located approximately 0.3 mile east of the reconductoring segment and 0.3 mile north of SR-46. There are seven public parks and three public school fields within 1 mile of the power line route; the closest public park facility is Barney Schwartz Park, located immediately adjacent south of Union Road, approximately 75 feet south of the new 70 kV power line segment. The Paso Robles City Library is also located approximately 0.5 mile west of the reconductoring segment. Construction-related activities will avoid these public facilities and no direct impact on these facilities will occur.

Although construction workers traveling to the project area may use existing public services or amenities, this potential increase in demand will be minimal and temporary, and will not require new or altered public facilities. Construction of the project will occur over a period of approximately 7 months. The project will not include development of new residential units or an expansion of infrastructure or services that will directly or indirectly increase population. No non-local construction workers are expected to permanently relocate to the area due to the limited nature of construction activities; therefore, no increased demand on public schools will occur. Existing parks and other public facilities are adequate to accommodate any incremental short-term increase in the use of proximate public facilities. Therefore, no construction-related impacts on schools, parks, and other public facilities will occur.

Based on the short duration of construction activities and the minimal effect on existing public services, impacts on public services related to construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

There are no public facilities within 1 mile of Estrella Substation. In general, operation and maintenance of Estrella Substation will include monthly inspections by the project proponents' existing local maintenance and operations staff as part of their current substation operation and maintenance activities. Because the project is designed to provide additional reliability for existing customers in the vicinity using remote technology for operations and monitoring, the project will not require a permanent workforce that could otherwise increase the demand for public services and facilities. As a result, the project will not directly or indirectly induce growth or create need for expanded or additional public services and facilities and therefore no direct impact on public services and facilities will occur during operation and maintenance of Estrella Substation.

While an accident or fire during long-term operation and maintenance of Estrella Substation is possible, the likelihood is considered low due to the project design and required safety features. Further, there are adequate police, fire, and emergency services in proximity to the project site to accommodate the minimal increase in demand. Additionally, response times are within acceptable ranges (0 to 10 minutes) and the fire threat is considered low in this area based on the proximity of available fire protection services, the availability of easy access to the site, and the agricultural nature of the project area. As such, operation of the substation will result in a negligible increase in demand for local fire and police protection and emergency services.

The project will not provide or include new or physically altered governmental facilities or result in a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Therefore, operation and maintenance-related impacts on fire, police, and emergency services will be less than significant.

In summary, operation and maintenance will not increase demand on public services and impacts on parks, schools, and other public facilities will be less than significant.

Power Line Route

As described above under Construction, there are several schools and public park facilities within 1 mile of the power line route; the closest public park facility is Barney Schwartz Park, located approximately 75 feet south of the new 70 kV power line segment. No public facilities are located closer than 75 feet from the power line route; therefore, no direct impact on public services and facilities will occur during operation and maintenance of the project.

Operation of the power line route after construction will result in a negligible increase in demand for local fire and police protection and emergency services in the event of an accident, vandalism, onsite fire or wildland fire in the project vicinity, or similar event. There are adequate police, fire, and emergency services in proximity to the project site to accommodate the minimal increase in demand. Response times are within acceptable ranges (0 to 10 minutes) and the fire threat is considered low in this area based on the proximity of available fire protection services and adequate accessibility of the site. The project will not provide or include new or physically altered governmental facilities or result in a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Therefore, operation and maintenance-related impacts on fire, police, and emergency services will be less than significant.

Operation and maintenance of the power line route will include regular inspection and patrols by an inspector from the project proponents' existing local staff as part of the current detailed inspection and aerial patrols. The project proponents' existing local maintenance and operations group will assume inspection, patrol, and maintenance duties as needed. No additional staff will be required to operate and maintain the project after construction is complete. The project is designed to provide additional reliability for existing customers in the vicinity, and will not directly or indirectly induce growth or create the need for expanded or additional public services or facilities. Therefore, operation and maintenance of the power line route will not increase demand on public services, and no impacts on parks, schools, and other public facilities will occur.

3.14.5 References

California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fire Hazard Severity Zones in SRA: Adopted by CAL FIRE on November 7, 2007*. Scale 1:150,000. Online: http://frap.fire.ca.gov/webdata/maps/san_luis_obispo/fhszs_map.40.pdf. Accessed July 13, 2016.

____. 2009. *Very High Fire Hazard Zones in LRA – As Recommended by CAL FIRE*. Scale 1:150,000. Online: http://frap.fire.ca.gov/webdata/maps/san_luis_obispo/fhszl_map.40.pdf. Accessed July 13, 2016.

CAL FIRE/San Luis Obispo County Fire. 2012. *Service Level Analysis for CAL FIRE/San Luis Obispo County Fire: Consolidated Fire Protection Strategic Plan*. August 2012. Online: http://www.calfireslo.org/Documents/Plans/FINALstratPlan(reduced).pdf. Accessed July 13, 2016.

California Highway Patrol (CHP). 2016(a). CHP (745) San Luis Obispo Website. Online: https://www.chp.ca.gov/Find-an-Office/Coastal-Division/Offices/(745)-San-Luis-Obispo. Accessed July 25, 2016.

_______. 2016(b). CHP (740) Templeton Website. Online: https://www.chp.ca.gov/find-an-office/coastal-division/offices/(740)-templeton. Accessed July 25, 2016.

Paso Robles Recreation Services. 2016. Parks and Facilities Webpage. Online: http://www.prcity.com/government/departments/recreation/facilities/index.asp. Accessed July 25, 2016.

County of San Luis Obispo. 2006. *Parks and Recreation Element of the San Luis Obispo County General Plan.* December 2006. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/Parks+and+Recreation+Element.pdf. Accessed July 25, 2016.

____. 2015. *2012–2014 Resource Summary Report: San Luis Obispo County General Plan.* May 5, 2015. Online: http://agenda.slocounty.ca.gov/agenda/sanluisobispo/4637/RmluYWwgUlNSIDUtNS0xNS1yZWR1Y2VkLnBkZg==/12/n/43726.doc. Accessed July 25, 2016.

____. 2016. Interactive GIS Mapping Program. Online: http://www.sloplanning.org/PermitViewMap/MapSearch. Accessed July 25, 2016.

Paso Robles Department of Emergency Services. 2016. Paso Robles Department of Emergency Services Website. Online: http://www.prcity.com/government/departments/emergencyservices/index.asp. Accessed on July 25, 2016.

Paso Robles Police Department. 2016. Paso Robles Police Department Website. Online: http://www.prcity.com/government/departments/police/operations.asp. Accessed on July 25, 2016.

Paso Robles Recreation Services. 2016. Parks and Facilities Webpage. Online: http://www.prcity.com/government/departments/recreation/facilities/index.asp. Accessed July 25, 2016.

San Luis Obispo County Fire Department. 2016. San Luis Obispo County Fire Department Website. Online: http://www.calfireslo.org/. Accessed on July 25, 2016.

San Luis Obispo County Sheriff's Department. 2014. *San Luis Obispo County Sheriff's Office 2014 Annual Report.* Online: https://issuu.com/verdinvision/docs/sheriff_annualreport_8.5x11_030615_?e=3793903/11743067. Accessed on July 25, 2016.

____. 2016. San Luis Obispo County Sheriff's Department Website. Online: http://slosheriff.org/divisions_units.php. Accessed on July 25, 2016.

3.15 RECREATION

3.15.1 Introduction

This section describes existing conditions and potential impacts on recreation as a result of construction, operation, and maintenance of the project. The analysis concludes that there will be no impacts to recreation. The project's potential effects associated with recreation were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.15-1, CEQA Checklist for Recreation, and discussed in more detail in Section 3.15.4, Applicant-Proposed Measures and Potential Impacts.

Scenic roads, views, and vistas are identified and discussed in Section 3.1, Aesthetics. Historic buildings and structures, which are often identified as important public landmarks for tourism and recreational enjoyment, are discussed in Section 3.5, Cultural Resources. Recreation resources also include public hiking or bicycle trails, which were identified through examination of aerial imagery and field surveys. Pedestrian and bicycle facilities are also discussed in Section 3.16, Transportation and Traffic. Temporary construction impacts on parks—such as dust, hazards, and noise—are discussed in Section 3.3, Air Quality, Section 3.8, Hazards and Hazardous Materials, and Section 3.12, Noise, respectively.

Table 3.15-1. CEQA Checklist for Recreation

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION				
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.15.2 Regulatory Background and Methodology

3.15.2.1 Regulatory Background

Federal

No federal laws or regulations related to recreation are applicable to the project.

State

No state laws or regulations related to recreation are applicable to the project.

Local

Because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local land use plans and regulations for informational purposes and to assist with CEQA review.

County of San Luis Obispo General Plan

The *Parks and Recreation Element* of the *County of San Luis Obispo General Plan* (County of San Luis Obispo 2006) establishes goals, policies, and implementation measures for the management, renovation, and expansion of existing, and development of new, parks and recreation facilities in order to meet existing and projected needs and to assure an equitable distribution of parks throughout the county.

> ***Goal 1. An equitable and quality public park system within San Luis Obispo County.***
>
> ***Objective A.*** *Maintain and improve as well as provide new and expanded parks and recreation within the County.*
>
>> ***Policy 6.6.*** *Preserve County parkland for active and passive recreation. Community facilities, which have little to no recreational component, shall be placed outside of an existing or proposed park.*
>
> ***Goal 7. High quality park maintenance that is cost effective and environmentally sensitive.***
>
> ***Objective I.*** *Provide new or expanded public facilities consistent with available maintenance funding.*
>
>> ***Policy 2.4.*** *Require new development adjacent to parks, recreation and natural areas to be designed to function with and enhance park resources. Adjacent, new private development should not detract from or use adjacent park or natural area resources for their own private use.*

San Luis Obispo County Bikeways Plan

The *San Luis Obispo County Bikeways Plan* (County of San Luis Obispo 2010) identifies and prioritizes bikeway facilities throughout the unincorporated area of the county, including bike lanes, routes, parking, connections with public transportation, educational programs, and funding. The plan outlines bikeway classifications, rules of operation, and standards including design manuals and local planning documents. The plan summarizes the County's bicycle circulation network including existing and future bicycle facilities, education, demand, safety, and future funding priorities.

River Road is an existing Class III bikeway, proposed to be improved as a Class II bikeway, which is maintained by the County north of the Paso Robles city limits near Clubhouse Drive.[1] There are no other designated County bikeways near the project.

City of El Paso de Robles General Plan

The *Parks and Recreation Element* of the *City of El Paso de Robles General Plan* (City of El Paso de Robles 2003) addresses the development and management of parks and recreational facilities with goals, policies, and action items that include the following:

> ***Goal PR-1: Optimize the use and development of parks and recreation facilities to serve the existing and projected population.***
>
> ***Policy PR-1A.*** *Parks and Recreation Facilities. Strive to Achieve a 7-acres per 1,000 population parkland standard.*
>
>> ***Action Item 3.*** *Allow activities and land uses near park areas that are compatible with the setting of a park.*

City of El Paso de Robles Bike Master Plan

The City's *Bike Master Plan* (City of El Paso de Robles 2009) was established to meet the goal of becoming a bicycle-friendly city. The plan sets out to establish better bicycle connections, provide bicycle safety education, integrate bicycling into schools, and increase bicycle-related tourism. The plan implements *City of El Paso De Robles General Plan* policies to provide connected neighborhoods and districts so that alternative modes of transportation such as bicycling are a viable alternative for transportation.

Proposed Class II bikeways under the plan near the project include Golden Hill Road, Salinas River Road, River Oaks Lane, Tractor Street, Union Road, and Airport Road. Clubhouse Drive, west of the River Oaks Golf Course, is the nearest existing Class II bikeway to the project[2]. There are no other designated City bikeways near the project.

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[1] Class III bikeways provide a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists. These facilities provide continuity to other bicycle facilities and have an advantage over alternative routes.

[2] Class II bikeways provide a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted. Bike lanes typically provide for one-way bicycle travel adjacent to the motor vehicle lane.

3.15.2.2 Methodology

Recreational areas are defined as any public or quasi-public site or facility that is used for recreational activities, including:

- National, state, county, city or private parks (e.g., dog parks)
- Bicycle paths
- Trails
- Open space preserves
- Cultural centers
- Museums
- Campgrounds

Although CEQA does not address impacts to private recreational areas such as sports clubs, golf courses, and amusement parks, nearby private recreational areas are discussed for informational purposes.

The Parks and Recreation Elements of the County of San Luis Obispo and City of El Paso de Robles General Plans were reviewed as part of the recreational resources evaluation, as were the websites of the California Protected Areas Database, Carrizo Plain National Monument, Los Padres National Forest, and the California State Parks System to identify parks and recreation areas within 1 mile of the project (GreenInfo Network 2016; California Department of Parks and Recreation 2016; BLM 2016; USDA 2016).

3.15.3 Environmental Setting

3.15.3.1 Regional Setting

Paso Robles is located along the central coast of California in northern San Luis Obispo County. The region is characterized by a diverse landscape of coastal mountain ranges, valleys, and shorelines trending from north to south. A variety of aquatic activities, including swimming, boating, kayaking, sport fishing, and surfing, are available from beaches on the western shoreline to the inland lakes and rivers. In San Luis Obispo County, Lake San Antonio and Lake Nacimiento provide swimming and boating opportunities to the northwest of Paso Robles. Numerous state parks have preserved beaches and habitat along the coast, including Hearst San Simeon, Harmony Headlands, Montaña de Oro, and Pismo State Beach. Oceano Dunes State Vehicular Recreation Area, at the southernmost edge of the San Luis Obispo County coast, provides a unique resource for off-road vehicle recreation in addition to its beach camping and hiking.

The coastal mountain ranges consist of a distinct mosaic of brush scrub, oak woodlands, and forestlands that are appealing to hikers, campers, and travelers. In San Luis Obispo County, the Los Padres National Forest, which ranges from Monterey County to Los Angeles County, begins west of Atascadero and runs south to the county border east of Santa Maria. The forest includes over 1,700,000 acres of public lands, over 1,200 miles of hiking and backpacking trails, and campgrounds and picnic areas (USDA 2016). The Carrizo Plain National Monument, at the southeast corner of the county, contains over 200,000 acres of desert plains and includes primitive camping areas, hiking and biking trails, hunting, and wildlife viewing (BLM 2016).

In Paso Robles, there are 96 acres of City parks; the largest parks are Barney Schwartz Park, Centennial Park, Sherwood Park, and Larry Moore Park. The City also maintains and manages 12 designated recreation trails within the city limits. Recreational services provided by the City include a municipal pool, a senior center, and activities and classes. To regional visitors and tourists, Paso Robles is perhaps most well-known for its wineries and vineyards, which are generally distributed along the city's agricultural margin east of downtown (City of El Paso de Robles 2016a,c).

3.15.3.2 Local Setting

The project is located within the northern portion of San Luis Obispo County, California, including portions of Paso Robles. The nearest communities are San Miguel and Templeton (refer to Figure 2-2, Project Overview Map).

As shown in Table 3.15-2, Recreational Resources within 1 Mile of the Project, 13 existing recreational resources are located within 1 mile of the project area, and Figure 3.10-1, Planning Areas and Public Facilities, in Section 3.10, Land Use and Planning, provides a map of parks and recreation areas within the project area. Seven public parks, three public school fields, and nine public trails are located within 1 mile of the project (City of El Paso de Robles 2016b). Public parks are maintained by the City Parks Maintenance Division and school fields are maintained by the Paso Robles Joint Unified School District (City of El Paso de Robles 2016c). Nearby facilities also include two private golf courses, one private fairground, and one private recreation area (refer to Table 3.15-2).

No parks or recreation facilities are located within 1 mile of Estrella Substation. A portion of the new 70 kV power line segment is adjacent to a private recreation club, Paso Robles Sports Club. The nearest public park or recreation facilities are Barney Schwartz Park, located 75 feet south of the new 70 kV power line segment across Union Road, and Salinas River Parkway Trail, which is a recreational trail segment within the Juan Bautista de Anza National Historic Trail corridor, as described in Section 3.10, Land Use and Planning. The Salinas River Parkway Trail is a north-to-south trail located generally parallel and between the east bank of Salinas River and Salinas River Road. At its closest point, the reconductoring segment is located approximately 100 feet east of Salinas River Parkway Trail, across Salinas River Road. No other parks or recreation facilities are located within 500 feet of the project.

Table 3.15-2. Recreational Resources within 1 Mile of the Project

Project Component*	Description	Location (approximate miles)
New 70 kV Power Line Segment		
Hunter Ranch Golf Course	Private Golf Course (18-Hole)	0.60 mile north
River Oaks Golf Course, Pavilion, and Amphitheater	Private Golf Course (6-Hole) and Event Venue	0.30 mile south
Barney Schwartz Park *(Barney Schwartz Park Loop)*	Public Park (baseball and soccer fields, picnic areas, playgrounds, and fishing lake) and Trail	75 feet south
Paso Robles Sports Club	Private Recreation Center (outdoor garden, pool and tennis courts; indoor fitness center)	adjacent
Almendra Court Trail	Public Trail	0.66 mile southwest
Water Tank Loop	Public Trail	0.79 mile southwest
School Field	Public Sports Field (Kermit King Elementary School)	0.70 mile south
Reconductoring Segment		
Salinas River Parkway Trail (Juan Bautista de Anza National Historic Trail)	Public Trail	100 feet west
River Oaks Golf Course, Pavilion, and Amphitheater	Private Golf Course (6-Hole) and Event Venue	0.12 mile east
Paso Robles Event Center	Private Fairgrounds	0.28 mile west
Pioneer Park	Public Park (softball field, skate park, basketball court, playground and picnic area)	0.33 mile west
City Park *(City Park Loop)*	Public Park (playground, picnic area, lawn and gazebo) and Trail	0.48 mile west
Robbins Field	Public Park (softball field)	0.48 mile west
Lawrence (Larry) Moore Park *(Larry Moore Park Loop)*	Public Park (playground, barbeque area, and playing field) and Trail	0.48 mile southwest
School Field	Public Sports Field (Independence and Liberty High School)	0.41 mile east
School Field	Public Sports Field (Kermit King Elementary School)	0.28 mile east
School Field	Public Sports Field (Paso Robles High School)	0.49 mile east
Lenco (Casa Robles) Park	Public Mini Park	0.32 mile east
Centennial Park	Public Park and Recreation Center (sports courts, playground, picnic areas, amphitheater, and	0.47 mile east

Table 3.15-2. Recreational Resources within 1 Mile of the Project

Project Component*	Description	Location (approximate miles)
(Centennial Park Trail)	community classrooms)	*(0.13 mile east)*
Water Tank Loop	Public Trail	0.90 mile west
Snead/Rambouillet Trail	Public Trail	0.60 mile southeast
Charolais Corridor Trail	Public Trail	0.62 mile south

*There are no recreational resources located within 1 mile of Estrella Substation

3.15.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for recreation impacts derived from Appendix G of the CEQA Guidelines and assess potential project-related construction, operation, and maintenance recreation impacts.

3.15.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts on recreation were evaluated for each of the criteria listed in Table 3.15-1, as discussed in Section 3.15.4.3.

3.15.4.2 Applicant-Proposed Measures

No APMs are suggested to further reduce already less-than-significant impacts.

3.15.4.3 Potential Impacts

Potential project impacts on recreation were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential project impacts during the construction phase and the operation and maintenance phase.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to recreation are anticipated at this time as a result of this future project.

Recreation-a: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? *(No Impact)*

Increases in overall permanent demand for recreational facilities are typically associated with substantial increases in population, either by the construction of new residences or by the creation of a major job generator that will indirectly increase the number of residents in an area. As discussed in Section 3.11, Population and Housing, implementation of the project will not result in a substantial increased demand for recreational facilities or adversely affect the existing recreational resources in a permanent manner. Construction workers may use local parks and recreational facilities on a limited basis, but this use will not result in a substantial increase in demand on such facilities, causing their accelerated physical deterioration.

Crews, materials, and equipment will primarily access the project site by using SR-46, and by either traveling along Union Road, Salinas River Road, Golden Hill Road, or North River Road. In doing so, vehicles or construction equipment may pass by public parks such as Barney Schwartz Park en route to Estrella Substation or the power line route for temporary construction and ongoing operation and maintenance activities.

The following discussion focuses on temporary construction impacts as well as permanent operation and maintenance impacts.

Construction

Estrella Substation

No parks or recreational facilities are located within 1 mile of Estrella Substation. Estrella Substation construction water trucks may travel to Barney Schwartz Park to access the City's water connections for project construction water. However, the water truck trips will be periodic and temporary, and will not substantially disrupt recreational activities or result in the deterioration of the park. As a result, no impacts will occur.

Power Line Route

Distances between parks and recreational facilities and the power line route are described in Table 3.15-2. A portion of the new 70 kV power line segment, including construction of several new poles, will be located on Paso Robles Sports Club property. The nearest public facilities include Barney Schwartz Park and Trail and Salinas River Parkway Trail. Barney Schwartz Park and Trail are located 75 feet south of the new 70 kV power line segment across Union Road. The reconductoring segment generally parallels Salinas River Trail, where the nearest point of the reconductoring segment is approximately 100 feet east of the trail. All other recreational resources are located greater than 500 feet (approximately 0.095 miles) away from the power line route. As a result, these facilities are not analyzed in the discussion below.

No work areas will be located in Barney Schwartz Park; however, construction water trucks may temporarily park at the site to collect water. In addition, construction crews may traverse or work in the Union Road public right-of-way to access the power line and work areas north of Union Road. The nearest construction work area to Salinas River Parkway Trail is a pole work area located approximately 90 feet west of the trail, across from Salinas River Road near Red Cloud Road. Crews may traverse or work in the Salinas River Road public right-of-way to access the power line and work areas west of Salinas River Road. In doing so, temporary construction work may take place within 250 feet of Salinas River Parkway Trail.

Helicopters may be used to assist with the installation of new poles in areas along the new 70 kV power line segment and reconductoring segment where limited access or local terrain conditions prohibit the work from being conducted by ground-based crews and equipment. Flight paths for helicopters will be from the Paso Robles Municipal Airport, to and along the power line route. Due to the limited duration and nature of construction activities, no impacts to Salinas River Parkway Trail will occur.

The new 70 kV power line segment will be permanently located adjacent to the private Paso Robles Sports Club and will be sited parallel to Union Road. It is anticipated that approximately three poles will be permanently sited on the sports club property and will be located along the club's property frontage currently occupied by landscaping. Construction activities on the property frontage will not impede the entrance to the sports club or cause physical deterioration of club facilities, and will not require use of an existing facility—such as the tennis courts, pools, or the fitness center—since sufficient space for pole construction activities exists on the undeveloped portion of the sports club property. As a result, no impacts on the club will occur.

Operation and Maintenance

Estrella Substation

Land uses adjacent to Estrella Substation are primarily agricultural, with no parks or recreational facilities located within 1 mile of the substation. As a result, no recreation impacts will occur as a result of operation and maintenance of Estrella Substation.

Power Line Route

While the project will not construct any permanent facilities on or overhead of any public parks, trails, or recreation facilities, the new 70 kV power line segment will be located adjacent to the privately-owned Paso Robles Sports Club. Maintenance to the approximately three poles will occur periodically and, because this portion of the power line is relatively short in length, the occasional operations and maintenance activities within the sports club property will be minimally intrusive.

The reconductoring segment is an existing power line in operation that already experiences periodic maintenance. Project operations and maintenance will be similar to existing work activities. No impacts to recreation will occur along the reconductoring segment.

Crews, materials, and equipment may periodically access the new 70 kV power line segment travelling on local roads, or temporarily establishing maintenance work areas along the road. In doing so, crews may pass by or work near public parks such as Barney Schwartz Park to access the power line for temporary ongoing operation and maintenance activities. In general, maintenance activities will consist of small crews and small vehicles such as bucket trucks. No maintenance activities are anticipated to require park or trail closure, although unforeseen circumstances could require the use of heavy equipment or helicopter use near public parks or trails. Maintenance will be temporary in nature and generally limited to a few days out of the year. As a result, no recreation impacts will occur as a result of operation and maintenance of the power line route.

Recreation-b: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? *(No Impact)*

The new 70 kV power line segment and approximately three poles will be permanently located adjacent to the private Paso Robles Sports Club parallel to Union Road. These structures will be located along the club's property frontage and will not require existing club facilities such as the tennis courts, pools, or the fitness center to be relocated. As a result, no impacts will occur.

3.15.5 References

California Department of Parks and Recreation. 2016. San Luis Obispo Coast District. Online: http://www.parks.ca.gov/?page_id=23793. Accessed on July 19, 2016.

City of El Paso De Robles. 2003. *City of El Paso De Robles General Plan, Parks and Recreation Element*. Adopted December 16, 2003. . Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/ParksRecreationElement.pdf. Accessed July 11, 2016.

____. 2009. *City of El Paso de Robles Bike Master Plan*. December 2009. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/BikeMasterPlan.pdf. Accessed July 11, 2016.

____. 2016a. Recreation Services – Parks and Facilities. Online: http://www.prcity.com/government/departments/recreation/facilities/index.asp. Accessed on July 11, 2016.

____. 2016b. City of Paso Robles – Parks and Trails. Online: http://www.prcity.com/government/departments/recreation/facilities/index.asp. Accessed August 2016.

____. 2016c. Public Works – Park Maintenance Division. Online: http://www.prcity.com/government/departments/publicworks/maintenance/parks.asp. Accessed on July 11, 2016.

County of San Luis Obispo. 2006. *County of San Luis Obispo General Plan, Parks and Recreation Element*. December 2006. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/BikeMasterPlan.pdf. Accessed July 11, 2016.

____. 2010. *San Luis Obispo County Bikeways Plan – 2010 Update*. November 2010. Online: http://www.slocounty.ca.gov/Assets/PW/Traffic/BAC/2010+Bikeways+Plan.pdf. Accessed July 11, 2016.

GreenInfo Network. 2016. California Protected Areas Database Data Portal. Online: http://www.calands.org/map. Accessed on July 11, 2016.

U.S. Bureau of Land Management (BLM). 2016. Carrizo Plain National Monument – Recreation Opportunities. Online: http://www.blm.gov/ca/st/en/prog/nlcs/Carrizo_Plain_NM/recreation.html. Accessed on July 11, 2016.

U.S. Department of Agriculture (USDA). 2016. Los Padres National Forest – About the Forest. Online: http://www.fs.usda.gov/main/lpnf/about-forest. Accessed on July 11, 2016.

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3.16 TRANSPORTATION AND TRAFFIC

3.16.1 Introduction

This section describes the existing transportation and traffic conditions in the project area and evaluates the potential project-related transportation and traffic impacts from implementation of the project. A summary of existing interstate, regional, and local roadways, transit, and other access roads to the project area also is provided.

The analysis concludes that impacts on traffic and transportation will be less than significant. Implementation of Applicant-Proposed Measures (APMs) described in Section 3.16.4.2, Applicant-Proposed Measures, will further ensure less-than-significant impacts. The project's potential effects on transportation and traffic were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The conclusions are summarized in Table 3.16-1, CEQA Checklist for Transportation and Traffic, and are discussed in more detail in Section 3.16.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.16-1. CEQA Checklist for Transportation and Traffic

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC ***Would the project:***				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒

Table 3.16-1. CEQA Checklist for Transportation and Traffic

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

3.16.2 Regulatory Background and Methodology

3.16.2.1 Regulatory Background

Federal

U.S. Department of Transportation

The U.S. Department of Transportation (USDOT) and the California Department of Transportation (Caltrans) are the administrating agencies for the following regulations:

- Code of Federal Regulations (CFR) Title 49, Sections 171–177 governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350–399 and Appendices A through G, Federal Motor Carrier Safety Regulations, addresses safety considerations for the transport of goods, materials, and substances over public highways.

Federal Aviation Administration

Requirements for notifying the Federal Aviation Administration (FAA) of proposed structures are based on a variety of factors such as structure height, proximity to an airport, location, and frequencies emitted from a proposed structure and are described in 14 CFR Part 77. When required, notice must be filed with the FAA at least 45 days prior to construction.

State

Caltrans owns the rights-of-way for the state highway system, and is responsible for providing a safe, sustainable, integrated, and efficient transportation system, including highway, bridge, and rail transportation planning, construction, and maintenance. Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies (Caltrans 2016). Caltrans is the administrating agency for regulations related to traffic safety, including the licensing of drivers, transportation of hazardous and combustible materials, and the safe operation of vehicles. Caltrans also requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in the California Vehicle Code Section 35551. Due to the likelihood of heavy truck loads, the project may require ministerial transportation permits from Caltrans.

An "encroachment" is defined in Section 660 of the California Streets and Highways Code as any tower, pole, pole line, pipe, pipeline, fence, billboard, stand or building, any structure not particularly mentioned in the section, or special event, which is in, under, or over any portion of the state highway right-of-way. Caltrans requires an encroachment permit when a proposed activity occurs within, under, or over a state highway right-of-way.

Local

Because the California Public Utilities Commission (CPUC) regulates and authorizes the construction of investor-owned public utility facilities, CPUC has exclusive jurisdiction over the siting and design of the project. As such, utility projects are exempt from local land use and zoning regulations and discretionary permitting. However, the project proponents have taken into consideration local land use plans and policies, as well as local land use priorities and concerns as they relate to transportation and traffic. Local agency policies are provided below for informational purposes.

County of San Luis Obispo

The *County of San Luis Obispo Framework for Planning (Inland)* (2015) contains goals to improve the relationship between land use and transportation. Goals include:

- **Goal 2:** Planning transportation system improvements to provide for, but not exceed, the demand of visitors and permanent residents.
- **Goal 4:** Coordinating the transportation systems between different modes of travel.

The Framework for Planning outlines a capacity advisory process for area roadways using three levels of severity to describe the condition. A Level of Severity III occurs when a road is operating at Level of Service (LOS) "D." Level II occurs when a road is projected to be operating at LOS D within 2 years. Level I exists when traffic volume projections indicate that LOS "D" would be reached within 5 years. Table 3.16-2, Level of Service Description, presents a physical description of LOS.

Table 3.16-2. Level of Service Description

Level of Service	Description
A	Free-flow conditions with unimpeded maneuverability. Stopped delay at signalized intersection is minimal.
B	Reasonably unimpeded operations with slightly restricted maneuverability. Stopped delays are not bothersome.
C	Stable operations with somewhat more restrictions in making mid-block lane changes than LOS B. Motorists will experience appreciable tension while driving.
D	Approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.
E	Operations with significant intersection approach delays and low average speeds.
F	Operations with extremely low speeds caused by intersection congestion, high delay, and adverse signal progression.

Source: Transportation Research Board 2010.

When Level I occurs, the County of San Luis Obispo (County) Public Works Department evaluates roadway capacity against the applicable *County of San Luis Obispo General Plan Land Use Element* Area Plan's allowance for development and any proposed and recently approved major projects; identifies alternative improvements and their costs at different allowable densities and uses, in cooperation with the County Planning and Building Department; and recommends feasible improvements and/or revisions to the Area Plan (County of San Luis Obispo 2015).

City of El Paso de Robles

The *Circulation Element* of the *City of El Paso de Robles General Plan* (City of El Paso de Robles 2011) de-emphasizes auto-centric measures (e.g., LOS) in favor of measures that represent a more efficient use of resources, and support the mobility of people, quality of life, and small town feel desired by residents. The 2011 Circulation Element identifies capacity utilization, or the extent to which the roadway's capacity is being used on a daily basis, as the target for future traffic projections. The 2011 Circulation Element notes that over 100% capacity utilization results in forced or breakdown conditions for motorists frequently throughout the day. This situation exists when the volume of traffic exceeds the capacity of the roadway and queues can form behind these bottleneck points with traffic traveling in a stop-and-go fashion. These conditions warrant more investment in roadway capacity improvements, or another strategy to reduce traffic and/or improve mobility through a particular road segment or intersection (City of El Paso de Robles 2011).

3.16.2.2 Methodology

Transportation and traffic data were obtained primarily through relevant literature, aerial photographs, and internet research. The *City of El Paso de Robles General Plan* (2011), *City of El Paso de Robles Bike Master Plan* (2009), *San Luis Obispo County North County Area Plan*

(2013), and *Paso Robles Municipal Airport Land Use Plan* (2007) were reviewed. The *Circulation Element* of the *City of El Paso de Robles General Plan* (2011) was used to determine average daily traffic and capacity utilization of affected roadways. Local and regional roadways within the project area were analyzed using aerial photographs. The material above was used to evaluate the project, using the CEQA checklist to determine potential impacts.

Project activities during construction and operation were evaluated within the context of transportation and traffic facilities and resources that serve the project site, to determine whether the project may result in changes that will directly or indirectly affect those facilities or resources.

3.16.3 Environmental Setting

This section includes a description of the roadways that will be used by workers and delivery trucks during construction, and operations and maintenance personnel during operations. Access routes will vary depending on the origin of the worker or truck, and the type of activity that day. Therefore, the roads that are most likely to be affected are described below.

3.16.3.1 Regional Roadways

The following section describes regional roads that serve the nearby communities along with state and regional travelers.

U.S. Highway 101

U.S. Highway 101 (US 101) is the backbone of the regional transportation system in the project vicinity, and is a major north-south freeway connecting Los Angeles to San Francisco and points north. In the vicinity of the project, US 101 is a four-lane freeway with two travel lanes in each direction.

State Route 46

State Route (SR-) 46 is the major expressway link between San Luis Obispo County and the San Joaquin Valley. Seasonal tourist traffic in the summer contributes substantially to the volume on the corridor, which is highly directional (i.e., the majority of travels are headed westbound in the a.m. and eastbound in the p.m.) during peak weekends. The 2008 Caltrans Corridor Study of SR-46 forecasted that the roadway would exceed capacity during certain times of day, typically the morning and afternoon 2-hour commute periods (City of El Paso de Robles 2011). To ensure that projected increases in traffic volumes did not exceed the desired LOS for rural highways, Caltrans widened SR-46 to four lanes in 2011 (Caltrans 2014).

Table 3.16-3, Regional Roadway Utilization, displays the regional roadways' average daily traffic and capacity utilization, while Figure 3.16-1, Existing Transportation Network Map, displays local and regional roadways in the project area.

Table 3.16-3. Regional Roadway Utilization

Roadway	Segment	ADT	Existing LOS
US 101	Spring Street to SR-46 (East)	23,290	A
	SR-46 (East) to 13th Street	48,990	B
	Niblick Street to SR-46 (West)	78,150	D
	SR-46 (West) to Main Street	66,660	C
SR-46	US 101 to Union Road	30,320	B
	Union Road to Airport Road	23,990	B
	Airport Road to Dry Creek Road	20,480	C

Source: City of El Paso de Robles 2011.

3.16.3.2 Local Roadways

The following section describes local roads that serve the nearby communities and provide access to the Estrella Substation site and power line route.

Niblick Road

Niblick Road serves as the third major crossing of the Salinas River in Paso Robles. It is an east-west four-lane arterial from Spring Street to Creston Road.

River Road

River Road is primarily a two-lane undivided north-south collector; however, at the intersections with Niblick Road and 13th Street/Creston Road, River Road is a four-lane arterial.

Golden Hill Road

Golden Hill Road is a north-south arterial from Creston Road to Circle B Road. Golden Hill Road ranges from a two-lane to four-lane arterial.

Union Road

Union Road is an east-west two-lane arterial that runs parallel to and south of SR-46.

Buena Vista Drive

Buena Vista Drive is a two-lane arterial located in the northern portion of Paso Robles that runs parallel to and north of SR-46.

Figure 3.16-1. Existing Transportation Network Map

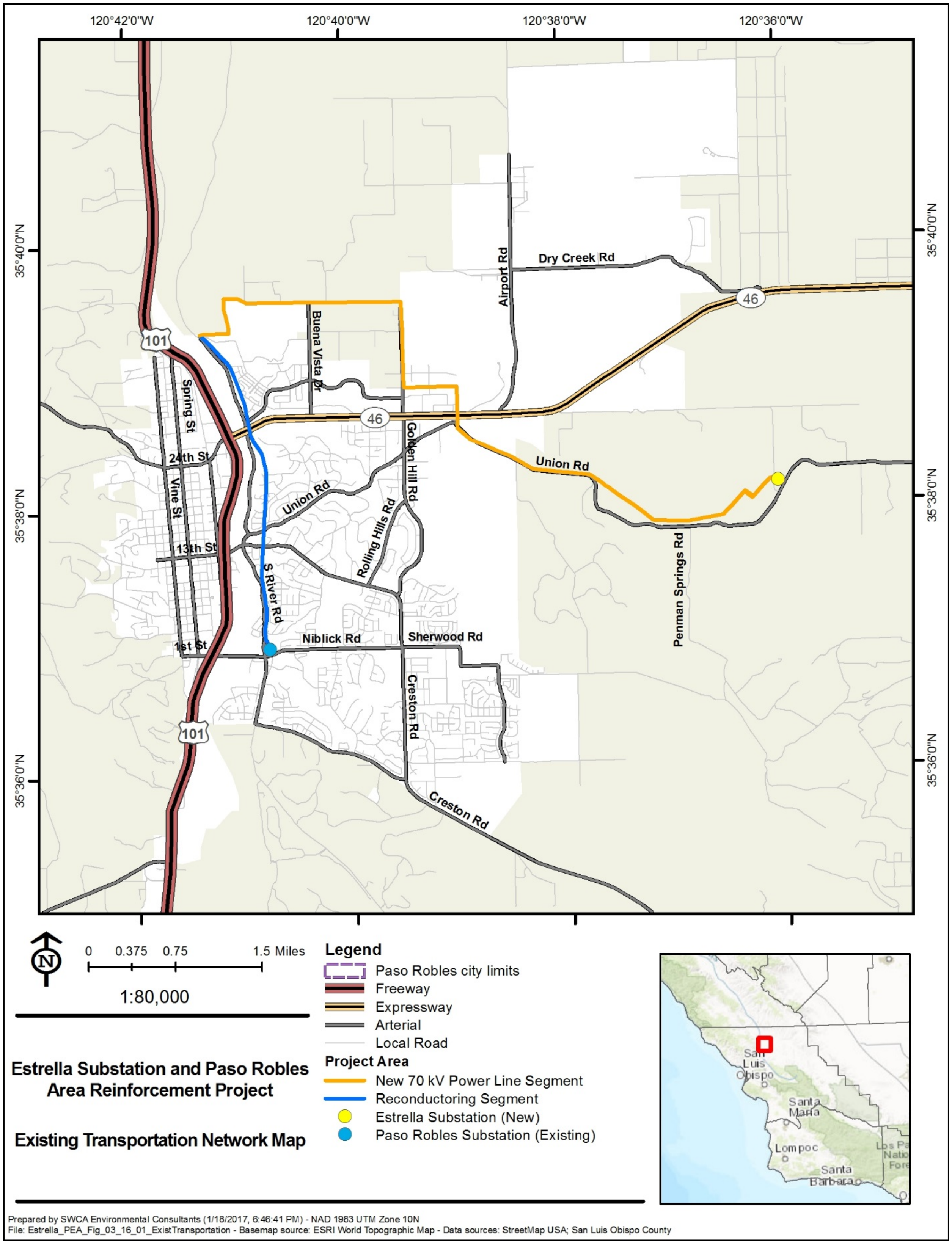

Table 3.16-4, Local Roadway Utilization, displays the local roadways' average daily traffic and capacity utilization.

Table 3.16-4. Local Roadway Utilization

Roadway	Segment	ADT	Existing LOS
Niblick Road	Spring Street to South River Road	31,430	D
	South River Road to Melody Drive	16,960	A
	Melody Drive to Creston Road	13,970	A
River Road	Serenade Road to Niblick Road	9,670	A
	Niblick Road to Navajo Road	12,900	A
	Union Road to SR-46 (East)	1,920	A
	SR-46 (East) to North City Limit	30	A
Golden Hill Road	Dallons Drive to SR-46 (East)	6,930	C
	Creston Road to Rolling Hill Road	7,950	C
	Rolling Hill Road to Union Road	10,540	C
	Union Road to SR-46 (East)	7,500	C
Union Road	North River Road to Kleck Road	5,650	C
	Kleck Road to Golden Hill Road	4,670	C
	Golden Hill Road to SR-46 (East)	5,020	C
	SR-46 East to East City Limit	1,530	C
Buena Vista Drive	SR-46 (East) to Experimental Station Road	4,820	C
	North of Cuesta College	2,730	C

Source: City of El Paso de Robles 2011.

3.16.3.3 Bicycle Facilities

County of San Luis Obispo

The *County Bikeways Plan Public Review Draft* (2016) describes the designated bikeways in the unincorporated areas of San Luis Obispo County, and establishes goals, policies, and procedures to promote bicycle use. No County bikeways occur in the project area.

City of El Paso de Robles

The *City of El Paso de Robles Bike Master Plan* (2009) describes the existing and proposed designated bikeways in Paso Robles. The plan establishes the goal of being a bicycle-friendly city by providing a master plan for bicycle transportation; developing programs that emphasize mobility by bicycle; developing a safety program; identifying bicycle improvement priorities; and identifying costs and funding sources for projects. Bicycle facilities in and around the project area include Class II bikeways[1] on Niblick Road and Union Road, from Creston Road to Kleck Road. Class II bikeways are also located along Clubhouse Drive and Dallon Drive in the northern portion of the city.

3.16.3.4 Air Traffic

One airport—Paso Robles Municipal Airport, operated by the City of El Paso de Robles (City)—is located in the project vicinity, approximately 1.3 miles northeast of the proposed new 70 kV power line segment, located along Golden Hill Road. The Municipal Airport is approximately 2.5 miles northwest of the Estrella Substation site. The Municipal Airport provides services for small planes and helicopters including maintenance, charters, supplies, and fuel; no commercial airline services are offered at the airport.

The *Airport Land Use Plan* (ALUP) for the Paso Robles Municipal Airport is a local land use plan that sets forth policies to promote compatibility between the Paso Robles Municipal Airport and future land uses in the surrounding area by establishing a set of compatibility criteria that is applicable to new development. The ALUP provides the basis by which the Airport Land Use Commission can carry out its land use development review responsibilities in accordance with Section 21670 et seq. of the California Public Utilities Code. Because CPUC has discretionary permitting jurisdiction over the project, the ALUP does not apply to the project.

3.16.3.5 Transit and Rail Services

The San Luis Obispo Regional Transit Authority (SLORTA) provides public transportation in San Luis Obispo County, including incorporated cities. SLORTA operates fixed-route buses, paratransit services, dial-a-ride services (i.e., curb-to-curb transportation), Paso Express bus service, and the Avila Beach trolley. In the vicinity of the project area, the Paso Express bus route is located on Niblick Road and Creston Road. Weekday fixed-route service is provided on SR-46 and US 101 (San Luis Obispo Regional Transit Authority 2016).

The Paso Robles Amtrak Station is located at 800 Pine Street in Paso Robles, on the west side of US 101, and serves the Coast Starlight line that provides service from Los Angeles to Seattle. The station has a passenger waiting area, is unstaffed, and served 12,149 passengers in 2015 (Amtrak 2015).

[1] Class II bikeways provide a striped lane for one-way bike travel on a street or highway adjacent to automobile travel lanes.

3.16.4 Applicant Proposed Measures and Potential Impacts

The following section describes significance criteria for transportation and traffic impacts derived from Appendix G of the CEQA Guidelines; provides APMs; and assesses potential project-related construction, operation, and maintenance impacts on transportation and traffic.

3.16.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project impacts related to transportation and traffic were evaluated for each of the criteria listed in Table 3.16-1, and discussed in Section 3.16.4.3.

Activities associated with construction of the project will have the potential to affect existing traffic patterns and cause traffic delays due to the transport of equipment and materials to and from the project area. Due to the nature of the proposed land use, traffic resulting from operation and maintenance activities of the project will generate minimal effects on the existing circulation system, as typically a limited amount of vehicular activity (i.e., approximately one trip per month for Estrella Substation and one annual trip for the power line) will be required over the long term. As a result, the following analysis of project-related traffic impacts is focused primarily on the construction phase.

According to Appendix G of the CEQA Guidelines, impacts on transportation and traffic would be considered significant if the project:

- Results in a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system;
- Results in a conflict with an applicable congestion management program;
- Results in a change in air traffic patterns;
- Results in a substantial increase in hazards due to design feature or incompatible uses;
- Result in inadequate emergency access; and/or,
- Conflicts with adopted policies, plans, or programs supporting alternative transportation.

3.16.4.2 Applicant Proposed Measures

No significant impacts on transportation systems or transportation-related policies will occur as a result of construction, operation, and maintenance of the project. The project will not create significant air traffic or transportation-related hazards or result in a significant impact on emergency access. The project will not cause an increase in traffic that is substantial in relation to existing traffic load and capacity.

Nevertheless, the project proponents will prepare traffic control plans as part of the encroachment permit application; the plans will describe the measures to be taken to guide traffic (such as signage, emergency access, and workers directing traffic) when and where appropriate during the construction period. In addition, the project proponents will implement air transit control measures for the flight of helicopters during construction. Table 3.16-5, lists the APMs to be implemented by the project proponents.

Table 3.16-5. Applicant Proposed Measures for Transportation and Traffic

APM No.	Description
	TRANSPORTATION AND TRAFFIC
APM TR-1	**Air Transit Control**. The project proponents will implement the following protocols that pertain to helicopter use during construction: • Comply with all applicable Federal Aviation Administration regulations regarding air traffic; • Helicopter operators will coordinate all project helicopter operations with the Paso Robles Municipal Airport before and during project construction; • Coordinate with potentially affected residents or businesses to minimize the duration of necessary work and any resulting inconvenience; and, • Implement a Congested Area Plan if the helicopter work will take place in a congested or densely populated area. A congested area is anywhere that includes the presence of the non-participating public. A densely populated area is an area of a city, town, or settlement that contains a large number of occupied homes, factories, stores, schools, and other structures.

3.16.4.3 Potential Impacts

Potential direct and indirect project impacts on transportation and traffic were evaluated against the CEQA significance criteria and are discussed below. The impact analysis evaluates potential temporary and permanent impacts that may occur during the construction phase and operation and maintenance phase. As discussed below, no significant impacts will occur.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. The estimated impacts of this future project are briefly discussed below where the analysis would differ from that of the project.

Traffic-a: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? *(Less than Significant)*

Construction

For the purposes of this analysis, the threshold of significance for area roadways includes capacity utilizations over 100%, as stated in the 2011 *City of El Paso de Robles General Plan Circulation Element*. Because Estrella Substation is located in San Luis Obispo County, traffic impacts are also measured against LOS thresholds identified in the County's Framework for Planning. In addition, regional roadways operated and maintained by Caltrans, including US 101 and SR-46, will be used by construction vehicles. Construction vehicle trips are added to existing average daily traffic to determine if the additional demand would temporarily exceed the identified acceptable roadway capacity or LOS in the project area. For roadways already operating at LOS D, such as Niblick Road, specific uses of this roadway will be addressed through the encroachment permit process with the City. Provided no lane closures are needed on a roadway operating at LOS D, impacts will be considered less than significant due to the short-term duration of its use for power line construction (Personal Communication, City of Paso Robles, 2016).

A significant impact will occur if the addition of construction vehicles would cause a roadway's capacity to be above 100% or result in LOS D or below. Impact from construction of Estrella Substation and the 70 kV power line will be less than significant.

Estrella Substation

During construction of Estrella Substation, vehicle trips will be generated by construction workers, equipment deliveries, and materials delivery trucks. Personnel will generally drive to the worksite at the beginning of the day and leave at the end of the day, with few personnel traveling to and from the worksite throughout the day. Construction related traffic will vary according to construction phase, as shown in Table 3.16-6, Estimated Daily Worker and Truck Trips for Construction of Estrella Substation.

It is anticipated that during the approximately 7-month construction period, a maximum of approximately 12 construction worker vehicle trips (round-trips) will occur per day. Trucks, such as crew trucks, semi-trucks, dump trucks, concrete trucks, and water trucks, will also be required throughout construction, for varying lengths of time. Transportation of equipment to the project site will occur less frequently (i.e., materials and most construction equipment, once delivered, will remain on site during construction of the substation). The primary source of truck trips during construction will be associated with the delivery and application of water for construction and dust control. A maximum of approximately 22 daily truck round-trips will be expected during the installation of the rock yard.

The worst-case scenario for project-related traffic will occur during the second week of the second month of construction. Construction will include fence and gate installation and foundation construction of the 230 kV substation; foundation construction of the 70 kV substation; and tower installation and removal at the 230 kV transmission interconnection. During this construction period, approximately 61 round-trip vehicle trips will occur. The 61 daily trips will contribute 122 vehicles to the average daily traffic of area roadways because one round-trip is equal to one in-bound and one out-bound trip. This is not likely to occur, however, as not all trucks will be required on all days. Additionally, these trips will not occur at the same time of the day, since they include both vehicles arriving at and departing the site at the beginning and end of the work day, and delivery and water trucks during the middle of the work day. Furthermore, not all trips will affect the same roads, as some vehicles may approach from the east on Union Road or SR-46, or use local arterials. It is likely that most vehicles will access the project site from US 101, exiting at SR-46 and heading southeast to the project site from Union Road.

Table 3.16-6. Estimated Daily Worker and Truck Trips for Construction of Estrella Substation

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Maximum Number of Daily Round-Trips
230 kV Substation				
Access Roads	10	6	12	16
Site Prep / Grading / Entrance Road / Culverts / Drainage	10	15	18	25
Fence and Gate Installation	5	2–14	12	19
Foundation Construction	2–12	1–16	36	28
Ground Grid / Conduit Installation	5	1–14	24	19
Steel / Bus Erection	5	2–15	24	20
Install Yard Rock	8	9–22	18	30
Transformer & Equipment Delivery and Installation	5-8	1–14	30	22
Control Enclosure Delivery and Installation	6	1	12	7
Remaining Equipment Delivery and Installation	2–5	1–14	24	19
Cable Installation and Termination	5	1	12	6
Testing and Commissioning	2–5	1–14	30	19
Cleanup and Restoration	3	1–14	18	17

Table 3.16-6. Estimated Daily Worker and Truck Trips for Construction of Estrella Substation

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Maximum Number of Daily Round-Trips
70 kV Substation				
Mobilization	6	3-4	12	10
Foundation Construction	1-10	5-6	30	16
Ground Grid / Conduit Installation	5	1-4	24	9
Steel / Bus Erection	5	1-4	24	9
Install Rock Yard	6	8	18	14
Equipment Delivery and Installation	6	4-5	18	11
Control Enclosure Delivery and Installation	3-5	2	18	7
Cable Installation and Termination	3-5	1-2	18	7
Testing and Commissioning	5	1	18	6
230 kV Transmission Interconnection				
Mobilization	7-8	6	24	14
Tower Installation and Removal of Tower	10	6-7	48	17
Conductor and Telecommunications Installation	15	6	24	21
Restoration	5	5	6	10

Construction of the project will not conflict with relevant circulation plans or policies establishing measures of effectiveness for the performance of the circulation system. The *Circulation Element* of the *City of El Paso de Robles General Plan* de-emphasizes auto-centric measures (i.e., LOS) in favor of capacity utilization, or the extent to which the roadway's capacity is being used on a daily basis, as the target for future traffic projections. All local and regional roadways in the project area are under their capacity utilization and threshold of significance (refer to Tables 3.16-3 and 3.16-4). Even if all construction phases were to occur simultaneously, the construction of Estrella Substation will result in a maximum of 544 one-way vehicle trips per day contributed to average daily traffic. Table 3.16-7, LOS of Affected Roadways During Construction of Estrella Substation, displays the capacity utilization during construction of the project from the additional average daily traffic.

Table 3.16-7. LOS of Affected Roadways During Construction of Estrella Substation

Roadway	Existing ADT	Existing LOS	ADT During Construction	LOS During Construction
US 101 (SR-46 East to 13th Street)	48,990	B	49,122	B
SR-46 (US 101 to Union Road)	30,320	C	30,422	C
Union Road (SR-46 to East City Limit)	1,530	C	1,652	C

Source: City of El Paso de Robles 2011.

Generally, roadways in the project vicinity will experience 1–5% increases in average daily traffic. With the addition of 122 one-way vehicle trips, the capacity utilization on local and regional roadways will remain below 100%, due to the large capacity of these roadways. Additionally, the LOS of the affected roadways during construction will remain the same as existing conditions. To reduce the potential number of daily worker-related vehicle trips to and from the site, the project proponents will encourage carpooling. San Luis Obispo County has 15 formal Park & Ride Lots available for use by members of the public, including two facilities located in Paso Robles. The first Park and Ride (Lot A) lot is located at the Multi Modal Station, at Pine Street and 7th Street. The second facility is in Walmart's parking lot located at Niblick Road and South River Road (SLO Regional Rideshare 2016). Transportation and circulation impacts associated with construction will be short-term, temporary, and dispersed within the project area.

No deficient roadway segments occur within or will be utilized as part of the substation construction. Short-duration delays could result from construction traffic turning into or leaving the substation work site from Union Road. Construction of Estrella Substation is unlikely to require temporary road or lane closures, and the slight, temporary increase in construction-related traffic will not result in conflicts with applicable plans, policies, or ordinances. Any necessary lane closures will be in accordance with traffic control plans filed with the encroachment permit application. Further, construction of Estrella Substation will not conflict with plans or policies related to other modes of transportation including bicycles, pedestrian facilities, and mass transit.

Impacts from construction of Estrella Substation will 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 construction traffic will be less than significant.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Transportation impacts associated with installation and construction of the future 70/21 kV transformer would be similar but less than those described for construction of Estrella Substation. While the types of equipment and vehicles used for both project activities will be similar, estimated vehicle trips for the distribution work will be much fewer than for construction of Estrella Substation. Reduced vehicle trips will occur because the construction schedule is shorter, and grading and site preparation at the 70 kV substation will have been completed. Reduced vehicle trips will also occur due to fewer workers required, as well as fewer material, water, and fuel deliveries.

The worst-case scenario for project-related traffic during construction of distribution facilities will occur during the second week of the first month of construction. Construction activities will include site mobilization, foundation construction, and ground grid and conduit installation. During this worst-case construction period, a maximum of approximately 31 round-trip vehicle trips will occur. These 31 daily trips will contribute 62 vehicles to the average daily traffic of area roadways because one round-trip is equal to one in-bound and one out-bound trip.

The addition of 31 daily round trips will not increase the capacity utilization for area roadways beyond their existing utilization rates at the time of construction. Therefore, activities associated with future construction of distribution facilities will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Impacts related to construction traffic will be less than significant.

Power Line Route

Construction of the 70 kV power line route will result in dispersed construction trips occurring throughout most of the city and affected areas of the county. Construction workers and vehicles will primarily access both the new power line route and the reconductoring segment by a number of local and regional roadways including US 101, SR-46, Niblick Road, River Road, Buena Vista Drive, Golden Hill Road, and Union Road.

Construction of the new power line route will occur within new easements, which will be located near, or span, local and regional roadways. The new 70 kV power line segment will span the four-lane expressway, SR-46, and Union Road, Buena Vista Drive, and a private dirt road that provides access to a residence in the northwestern project area. The reconductoring segment will span River Oaks Drive, SR-46, Union Road, Creston Road, and several local roadways.

Where the power line route crosses roadways, complete road closures may occur during construction. If lane closures are required, traffic will be diverted to adjacent lanes, temporarily, with the use of cones and flaggers. If the entire roadway must be closed, the road will be closed for up to 5 to 10 minutes at a time during the installation of crossing structures prior to pulling conductor. Crossing structure installation will generally be conducted during low-volume traffic times to the extent practicable, with the potential for weekend work on occasion, as necessary. Closing lanes will temporarily reduce speeds and cause temporary congestion. Road closures on private and county roads are not expected to exceed approximately 5 minutes in duration.

The new 70 kV power line segment will run parallel to Golden Hill Road (north of SR-46) and Buena Vista Drive. Traffic flow in this area may be temporarily disrupted when it is necessary to conduct work from road shoulders where poles are located adjacent to roadways. Shoulder work will be short term and limited in duration. The new 70 kV power line segment is generally located in the northern portion of the city and rural areas of the county. In these areas, traffic volumes on the affected roadways are lower because the population of these areas is less than those in the more densely populated areas of the city.

Any necessary encroachment permits will be obtained prior to construction, and temporary or partial lane closures will be in accordance with traffic control plans filed with the encroachment permit application. Typical traffic controls used during construction will include warning signs, lights, cones, and barricades; minimum interference with traffic; and cleanup of the right-of-way upon completion of work. Traffic controls will be implemented to direct local traffic safely around the work areas and lessen effects to circulation. The project will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Potential short-term impacts associated with traffic delays will be less than significant.

As described previously for substation work, construction traffic is anticipated to vary depending on the phase of the project. These phases are shown in Table 3.16-8, Estimated Daily Worker and Truck Trips for Construction of the Power Line Route.

Table 3.16-8. Estimated Daily Worker and Truck Trips for Construction of the Power Line Route

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Maximum Number of Daily Round-Trips
70 kV Power Line Segment				
Site Preparation / Mobilization	6	5	24	11
Pole / Tower Installation	9	6-8	72	17
Conductor Installation	9	5	48	14
Clean-up and Site Restoration	6	4	12	10
Reconductoring Segment				
Site Development	6	5	24	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	72	16
Conductor Installation	9	5	64	14
Clean-up and Site Restoration	6	3	12	9

As shown in Table 3.16-8, it is anticipated that during construction a maximum of approximately nine construction worker vehicle trips (round-trips) and eight truck trips (round-trips) will occur per day.

The worst-case scenario for project-related traffic will occur during the second and third month of construction. Construction will include pole/tower installation of the new 70 kV power line segment and conductor spreading, pole installation, transfer distribution, and pole removal during construction of the reconductoring segment. During this construction period, approximately 33 round-trip vehicle trips will occur. The 33 daily trips will contribute 66 vehicles to the average daily traffic of area roadways because one round-trip is equal to one in-bound and one out-bound trip. This is not likely to occur, however, as not all trucks will be required on all days. Additionally, these trips will not occur at the same time, since they include both vehicles arriving at and departing the site at the beginning and end of the work day, and delivery and water trucks during the middle of the work day. Further, not all trips will affect the same roads, as some vehicles may approach from the east on Union Road or SR-46, or use local arterials. It is likely that most vehicles will access the project site from US 101, exiting at SR-46 and heading to their work area along the power line route. Crews working on the power line route will drive to the main staging area where they will assemble and transfer to the construction equipment and vehicles. This equipment will then be used that day and the vehicles will be used to carpool to the construction site for each day of work.

Table 3.16-9, LOS of Affected Roadways During Construction of Power Line Route, shows the capacity utilization during construction of the 70 kV power line route from the additional average daily traffic.

Table 3.16-9. LOS of Affected Roadways During Construction of Power Line Route

Roadway	Existing ADT	Existing LOS	ADT During Construction	LOS During Construction
Golden Hill Road (Dallons Drive to SR-46)	6,930	C	6,996	C
US 101 (SR-46 East to 13th Street)	48,990	C	49,056	C
SR-46 (US 101 to Union Road)	30,320	C	30,386	C
Buena Vista Drive (SR-46 to Experimental Station Road)	4,820	C	4,886	C
Niblick Road (Spring Street to South River Road)	31,430	D	31,496	D
Union Road (SR-46 to East City Limit)	1,530	C	1,596	C
River Road (Serenade Road to Niblick Road)	9,670	A	9,736	A
River Road (Niblick Road to Navajo Road)	12,900	A	12,966	A
River Road (Union Road to SR-46 (East)	1,920	A	1,986	A
River Road (SR-46 to North City Limit)	30	A	96	A

Source: City of El Paso de Robles 2011.

The addition of 66 one-way vehicle trips will not result in capacity utilization over 100% on the affected roadways. In addition, the LOS of roadways in the project area will remain the same as existing conditions.

Construction of the power line route will not conflict with plans or policies related to other modes of transportation in the project area including bicycles, pedestrian facilities, and mass transit. Impacts from construction of the power line route will 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 construction traffic will be less than significant.

Operation and Maintenance

Estrella Substation

The 230 kV substation will be remotely operated from one of NEET's control center facilities, and no full-time employees will be located at the substation. Routine maintenance is expected to require monthly trips to the project site, which will add one vehicle trip (round-trip) per month to area roadways. The 70 kV substation will be remotely operated from PG&E's Grid Control Center, and no full-time employees will be located at the substation. Routine maintenance is expected to require monthly trips to the project site, which will add one vehicle trip (round-trip) per month to area roadways. Effects on traffic resulting from operations and maintenance of the substation will be negligible and therefore, no long-term operational impacts on traffic load or capacity will occur as a result of the project. Operation of the project will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Therefore, no impacts related to the circulation system will occur.

Power Line Route

Operations and maintenance of the 70 kV power line route will be limited to annual inspections and bi-annual detailed inspections. Operations and maintenance that occurs on the new power line will be added to the existing operations and maintenance activities that occur at existing facilities in the area; therefore, operation and maintenance traffic will remain the same. Effects on traffic will be negligible and no long-term operational impacts will occur as a result of the project. Operation of the project will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Therefore, no impacts related to the circulation system will occur.

Traffic-b: Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? *(No Impact)*

Construction

Estrella Substation

The County does not have a Congestion Management Plan, and LOS is addressed above under Impact Traffic-a. Therefore, the project will not impact LOS standards, travel demand measures, or other standards established therein. As described in Impact Traffic-a, capacity utilization on nearby roadways will remain below 100% utilization as called for in the *City of El Paso de Robles General Plan*, and the construction of Estrella Substation would not degrade LOS below County thresholds of significance. Therefore, construction of Estrella Substation will not conflict with an applicable congestion management program, and no impacts will occur.

Power Line Route

The County does not have a Congestion Management Plan and the City is not required to have one; therefore, construction of the power line route will not conflict with an applicable congestion management program, and no impacts will occur.

Operation and Maintenance

The County does not have a Congestion Management Plan and the City is not required to have one; therefore, operations and maintenance of Estrella Substation and the power line route will not conflict with an applicable congestion management program, and no impacts will occur.

Traffic-c: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? *(Less than Significant)*

Construction

Estrella Substation

The Paso Robles Municipal Airport is located approximately 2.5 miles northwest of Estrella Substation. It is anticipated that construction of Estrella Substation will not involve helicopters or any other aviation activities. Estrella Substation is outside of the Paso Robles Municipal Airport Review Area and Airport Safety Zone (refer to Figures 3.10-1, Planning Areas and Public Facilities, and 3.10-4, County Combining Designations Map, in Section 3.10, Land Use and Planning). Therefore, no impacts on air traffic patterns or safety risk will occur from construction of the substation. Should helicopters be required for substation construction, the project proponents will implement APM TR-1, Air Transit Control, to ensure compliance with all applicable FAA Regulations regarding air traffic.

Power Line Route

At its closest point, the Paso Robles Municipal Airport is approximately 1.3 miles northeast of the new 70 kV power line segment. To assist in the construction of the new 70 kV power line and reconductoring segments, helicopters may be used where limited access or local terrain conditions prohibit the work from being conducted by ground-based crews and equipment. To accommodate a helicopter, three helicopter landing zones within the project area have been preliminarily identified. Landing zones have been preliminarily identified, at the Paso Robles Municipal Airport, Estrella Substation site, and a previous residential site adjacent and to the south of River Road. Construction staging areas may also be used during construction for helicopter operations. Helicopter flight paths generally will be limited to the existing power line right-of-way and project-specific landing zones. Additionally, helicopter use will be in accordance with all applicable federal, state, and local aviation rules and regulations. For additional information regarding helicopter safety risk, refer to Section 3.7, Hazards and Hazardous Materials.

The majority of construction activities requiring use of a helicopter will be located within a PG&E easement; therefore, the flight path of the helicopters from the landing zones poses relatively few safety risks outside of the project alignment. Construction of the power line will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Impacts will be less than significant. Per APM TR-1, the helicopter operator will prepare a Congested Area Plan, which is required by 14 CFR and the FAA for helicopter operations that occur over the nonparticipating public, as well as areas congested with structures or objects. The Congested Area Plan identifies and limits risk and undue hazards associated with helicopter operations in such areas. Implementation of APM TR-1, including the preparation of a Congested Area Plan when needed (a copy of which will be provided to the CPUC upon approval from the airport), will ensure impacts on air traffic patterns and safety remain less than significant.

Operation and Maintenance

Estrella Substation

No helicopter use will occur during operation and maintenance of Estrella Substation. Therefore, no change in air traffic patterns, including an increase in traffic levels or safety risks will occur.

Power Line Route

The new 70 kV power line segment is within the Airport Review Area, Airport Safety Zones (zones 3, 4, and 5), and Class E airspace (i.e., airspace surrounding the airport from the surface to 1,200 feet above ground level) for the Paso Robles Municipal Airport. As such, the project proponents will be required to notify FAA as part of 14 CFR Part 77 in the event helicopters are required for operations and maintenance. In addition, although not subject to the ALUP for the Paso Robles Municipal Airport, PG&E will coordinate with the appropriate airport to determine any appropriate airspace safety modifications beyond those set forth by FAA. Because PG&E will coordinate with Paso Robles Municipal Airport and comply with FAA Regulations for operations and maintenance of the power line route involving helicopters, impacts on air traffic safety will be less than significant.

Traffic-d: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? *(Less than Significant)*

Construction

Estrella Substation

No material increase in traffic hazards is anticipated from the construction of the project or from any design features or incompatible uses. Large construction trucks at local intersections will be present only temporarily, and cause limited-duration changes to driving conditions, as the trucks travel back and forth to the construction site. Construction of Estrella Substation will not alter any public roadways or intersections, nor will it introduce incompatible uses. Construction vehicles will enter the substation worksite by turning from Union Road, similar to other roadways and driveways along the route. Therefore, impacts related to increased hazards during construction of the substation will be less than significant.

Power Line Route

PG&E will grade or mow new temporary unpaved roads or travel overland to provide access to pole locations along the new 70 kV power line and reconductoring segments. These access roads will be restricted to construction personnel. Some existing access roads may be reestablished as part of the construction activities, as necessary; however, these roads have been previously used for maintenance activities for the existing power lines. Entrance to access roads will be provided from local roadways. The new 70 kV power line segment and associated access roads are primarily located in the northern and eastern portions of the city and northern, rural areas of the county that have smaller populations, limited traffic, and under-utilized roadways (refer to Tables 3.16-3 and 3.16-4). Work along the new 70 kV power line segment will occur from the road shoulder, where feasible, or within the easement.

Construction of the project will not require permanent modifications to existing public roadways. Any lane or road closures that will occur on Caltrans, County, and City roads will be temporary and short term, consistent with applicable regulations. Further, any closures will be coordinated with Caltrans, the County, or the City as part of construction-related encroachment permits.

Increased hazards could result from an increase in vehicular traffic at the intersections of temporary access roads with public roadways, as well as during temporary lane and road closures. However, impacts will be minimized through implementation of requirements contained in the project's encroachment permits. In addition, use of project-specific access roads will be limited to project personnel, and traffic controls such as signage and flagging personnel will be implemented during road/lane closures, minimizing hazards to the public. Therefore, impacts from increased hazards or incompatible uses from the construction of the power line route will be less than significant.

Operation and Maintenance

Estrella Substation

Access to Estrella Substation will be provided on a new access road off of Union Road. Operations and maintenance activities at Estrella Substation will occur on a limited basis (monthly) resulting in negligible operational traffic to the substation area. The new access drive will not create an incompatible use or an increased hazard due to a sharp curve or dangerous intersection. Therefore, operational impacts from increased hazards and incompatible uses will be less than significant.

Power Line Route

During operations, access roads will be used intermittently for power line inspections. The new and existing access roads associated with the power line route will not cause an increased hazard or incompatible use because users of these access areas will be limited to PG&E personnel only. Therefore, impacts related to the power line route will be less than significant.

Traffic-e: Result in inadequate emergency access? *(Less than Significant)*

Construction

Estrella Substation

Routes for emergency response vehicles along Union Road will be maintained throughout project construction. Project activities could have the potential, in rare circumstances, to slow emergency response vehicles. The project proponents will coordinate with local emergency response personnel in the event of road/lane closures. As shown in Table 3.16-6, only minor amounts of construction-related traffic will be generated to and from the substation site. Therefore, impacts related to emergency access during construction of the substation will be less than significant.

Power Line Route

Construction vehicles and equipment are anticipated to access project construction areas for towers and poles by using existing paved, dirt, and/or gravel roads and new overland travel routes. In addition, a helicopter may be used to construct some tower locations. Construction vehicles and equipment needed at the pull sites are expected to be staged or parked within project area easements, approved temporary construction easements, or alongside access roads. Any road closures will be temporary and will be implemented in coordination with Caltrans and/or local jurisdictions as part of the implementation of the requirements set forth in the encroachment permit to reduce the effects of potential temporary and short-term emergency access. Therefore, impacts related to emergency access during construction of the power line route will be less than significant.

Operation and Maintenance

Operation of Estrella Substation and the power line route will involve negligible traffic associated with monthly maintenance activities. As discussed in Traffic-a, no noticeable effect on circulation will occur as a result of the project. Therefore, no impact on emergency access from the operation of the project will occur.

Traffic-f: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? *(No Impact)*

Construction

Estrella Substation

Construction traffic for Estrella Substation is not anticipated to occur on any designated bicycle routes. Additional traffic may occur on the Paso Express fixed-bus route along SR-46, but it would be imperceptible given the current low volume of traffic. No effect on pedestrians will occur during construction of the project, as no pedestrian or bicycle facilities are located near the project site. Additionally, no commuter rail stations are located in the vicinity of the substation. Therefore, construction of Estrella Substation will not conflict with adopted policies, plans, or programs related to public transit, bicycle, or pedestrian facilities and no impact will occur.

Power Line Route

Construction trips generated by construction of the power line route will be dispersed throughout the city and northern areas of the county and thus will affect a variety of roadways including roads that have bicycle and pedestrian facilities. The addition of construction traffic will not result in adverse effects to these facilities because the additional traffic will be distributed on local streets and will be imperceptible compared to normal traffic patterns. Similarly, construction traffic may occur on the Paso Express fixed-bus route along SR-46 and Creston Road, but it will be imperceptible due to the existing low volume of traffic on these roadways. Construction traffic also may occur on Niblick Road, which operates at LOS D, however, construction traffic will be short-term, localized, and temporary. Further, no commuter rail stations are located in the vicinity of the power line route. Therefore, construction of the power line route will not conflict with adopted policies, plans, or programs related to public transit, bicycle, or pedestrian facilities and no impact will occur.

Operation and Maintenance

Estrella Substation

The Estrella Substation project site is located on Union Road, which does not have any public transit, pedestrian, or bicycle facilities, and operation and maintenance of the project will not conflict with adopted policies, plans, or programs related to public transit, bicycle, or pedestrian facilities. Therefore, no impact will occur.

Power Line Route

Operation of the power line route will involve negligible traffic associated with annual maintenance and inspections activities along the route. The increase in traffic will be imperceptible to bicyclists, pedestrians, and public transit, and operation of the project will not conflict with adopted policies, plans, or programs related to public transit, bicycle, or pedestrian facilities. Therefore, no impact will occur.

3.16.5 References

Amtrak. 2015. Amtrak Fact Sheet, Fiscal Year 2015, State of California. Online: https://www.amtrak.com/ccurl/736/509/CALIFORNIA15.pdf. November 2015. Accessed on July 25, 2016.

California Department of Transportation (Caltrans). 2014. Highway 46 Corridor Improvement Project. Online: http://www.dot.ca.gov/dist05/projects/safer46/46corridor.html. July 11, 2014. Accessed on July 25, 2016.

____. 2016. Getting to Know Caltrans. Online: http://www.dot.ca.gov/aboutct.html. Accessed on July 30, 2016.

City of El Paso de Robles. 2009. *Bike Master Plan*. December 2009. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/BikeMasterPlan.pdf. Accessed July 30, 2016.

____. 2011. *General Plan 2011 Circulation Element*. Prepared by Fehr & Peers. February 2011. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/CirculationElement.pdf. Accessed July 25, 2016.

County of San Luis Obispo. 2013. *North Coast Area Plan*. August 8, 2013. Online: http://www.slocounty.ca.gov/Assets/PL/Area+Plans/North+Coast+Area+Plan.pdf. Accessed July 30, 2016.

____. 2015. *The Land Use and Circulation Elements of the San Luis Obispo County General Plan, Framework for Planning (Inland)*. Revised April 2015. Online: http://www.slocounty.ca.gov/Assets/PL/Elements/inlandframework.pdf. Accessed July 30, 2016.

____. 2016. *2015/2016 County Bikeway's Plan*. February 18, 2016. Public Review Draft. Online: http://www.slocounty.ca.gov/Assets/PW/Traffic/BAC/2010+Bikeways+Plan.pdf. Accessed July 30, 2016.

Paso Robles Municipal Airport. 2007. *Airport Land Use Plan for the Paso Robles Municipal Airport*. Amended May 16, 2007. Online: http://www.prcity.com/government/departments/publicworks/airport/pdf/ALUP/ALUPdocument.pdf. Accessed July 30, 2016.

San Luis Obispo County Regional Transit Authority. 2016. Services. Online: http://www.slorta.org/services/. Accessed on July 25, 2016.

SLO Regional Rideshare. 2016. Park & Ride Lots. San Luis Obispo Council of Governments, SLO Regional Rideshare. Online: https://rideshare.org/park-ride-lots/. Accessed December 2, 2016.

Transportation Research Board. 2012. HCM 2010: Highway Capacity Manual. July 2012.

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3.17 UTILITIES AND SERVICE SYSTEMS

3.17.1 Introduction

This section describes existing conditions and potential impacts on utilities and service systems as a result of construction, operation, and maintenance of the project. Under the California Environmental Quality Act (CEQA), utilities and service systems include water supply facilities, wastewater treatment facilities, stormwater drainage facilities, and solid waste disposal facilities (landfills). This section also addresses potential impacts on electricity, natural gas, and communication infrastructure and service systems.

The project's potential effects on utilities and service systems were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines. The analysis in this section concludes that impacts to utilities and service systems will be less than significant. The conclusions are summarized in Table 3.17-1, CEQA Checklist for Utilities and Service Systems, and discussed in more detail in Section 3.17.4, Applicant-Proposed Measures and Potential Impacts.

Table 3.17-1. CEQA Checklist for Utilities and Service Systems

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS ***Would the project:***				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

Table 3.17-1. CEQA Checklist for Utilities and Service Systems

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

3.17.2 Regulatory Background and Methodology

3.17.2.1 Regulatory Background

Federal

No federal regulations pertaining to utilities and service systems are applicable to the project.

State

California Government Code

Section 4216 of the California Government Code protects underground structures during excavation. Under this law, excavators are required to contact a regional notification center at least 2 days prior to excavation of any subsurface installations. In the project area, Underground Service Alert (USA) North 811 is the regional notification center. USA North 811 notifies utility providers with buried lines within 1,000 feet of the excavation, and those providers are required to mark the specific location of their facilities prior to excavation. The code also requires excavators to probe and expose existing utilities, in accordance with state law, before using power-operated or power-driven equipment.

Local

Because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction of the project, the project is not subject to local discretionary regulations. The following summary of local statues and regulations relating to public utilities and service systems is provided for informational purposes and to assist with CEQA review.

County of San Luis Obispo Land Use and Circulation Elements (Part II) – The Area Plans, III. North County Area Plan

Solid Waste Disposal

9. ***Rural Recycling Collection.*** *The County Public Works Department should work with solid waste collection providers to establish rural recyclable collection service where it does not already exist.*

10. ***Maximize Landfill Use.*** *The County Planning and Building and Public Works Departments should require solid waste collection providers to utilize existing solid waste disposal sites to their full potential before new sites are approved.*

11. ***Collection Station.*** *The County should establish rural refuse collection stations in the following locations:*

    a. *Lime Mountain Road near Franklin Creek*

    b. *South end of Bee Rock Road*

    c. *Pozo village area*

    d. *Santa Margarita Lake recreation area*

    e. *Intersection of Park Hill and Las Pilitas Roads*

13. ***Rural Solid Waste Collection Stations, Salinas River.*** *The County should consider the feasibility of locating rural solid waste collection transfer stations in the larger suburban and rural residential areas of the Salinas River sub-area. A transfer station is a facility designed to accommodate the transfer of solid waste from the general public and refuse collection vehicles for transport to a relatively distant final point of disposal.*

Septage Disposal

32. ***Septage Disposal, Salinas River.*** *The County should secure long-term locations for the safe disposal of septage in the Salinas River sub-area.*

Land Use Element of the City of El Paso de Robles General Plan

POLICY LU-4A: *Service Levels. Strive to ensure that City services and facilities are maintained at current levels and/or adopted standards, and are funded as revenues become available. These standards are summarized as follows:*

Police	Maintain a ratio of 0.5 non-sworn personnel per 1,000 population. Maintain a ratio of 1.4 sworn personnel per 1,000 population.
Emergency Services, Public Works (Water, Sewer, Storm Drainage, Solid Waste)	Strive to achieve a 4 minute response to 90% of the calls for service. Maintain a ratio of 0.8 to 1.3 Firefighters per 1,000 population. Public facilities to be designed to meet the current and planned land uses, provisions to be made for continued operation, maintenance, and upgrades as necessary.
Library	Maintain 0.5 square feet per capita of library facilities.

Action Item 1. *Direct City revenues toward continuing to fund the public services and on-going maintenance/operation of public facilities and utilities provided by the City (water, sewer, storm drains, police, emergency services, library, recreational services, and solid waste).*

3.17.2.2 Methodology

General plans, area plans, management plans, and official websites for service providers in the project area, including San Luis Obispo County and the City of Paso Robles, were reviewed for information regarding wastewater collection and treatment, water supply, stormwater drainage, solid waste disposal, electricity and natural gas, and communications facilities and service systems. Potential impacts on these service systems resulting from project-related effects and increased demand were analyzed according to the thresholds in Appendix G of the CEQA Guidelines.

3.17.3 Environmental Setting

3.17.3.1 Wastewater Collection and Treatment Services

San Luis Obispo County

The rural portion of the County of San Luis Obispo's (County) North County Planning Area (outside of urban areas such as the communities of San Miguel and Shandon) relies on individual septic systems for sewage disposal. Careful siting and periodic maintenance generally prevent the most common septic system problems; however, future ownership and development patterns in some Residential Suburban areas and smaller-lot antiquated subdivisions could result in the need for additional wastewater collection and treatment services and/or issues associated with septic systems being constructed in close proximity to water wells. The location of development must conform to the density criteria recommended by the Central Coast Basin Water Quality Control Plan in order to protect the health and safety of area residents (County of San Luis Obispo 2014).

City of Paso Robles

Wastewater collection and treatment services in Paso Robles are managed by the City of El Paso de Robles (City) Department of Public Works – Wastewater Division. The Wastewater Division owns and operates 136 miles of sewers and 14 lift stations to collect wastewater from all of Paso Robles and an area in east Templeton. The collection system provides service to 30,072 customers within the city limits of Paso Robles and conveys an average of 6 million gallons per month from the Templeton Community Services District for treatment at a 4.9 million gallons per day (mgd) capacity wastewater treatment plant located near the Salinas River in northern Paso Robles—the Paso Robles Wastewater Treatment Plant (PRWWTP). The average daily flow from the collection system to the PRWWTP is approximately 2.7 mgd and flows are projected to gradually increase to approximately 4.4 mgd by 2045 (City of El Paso de Robles 2016a, 2016b).

The PRWWTP consists of a physical, biological, and chemical process that currently treats and discharges 2.7 mgd of wastewater to Salinas River each day. The plant operates under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047953.

Until recently, the PRWWTP was outdated and struggled to comply with modern state and federal water quality regulations. In 2015, the City completed a major upgrade of the plant to add a biological nutrient removal process. The upgrade included new headworks, rehabilitation of primary clarifiers, a new pump station, replacement of trickling filters with the Biological Nutrient Removal process, new secondary clarifiers, a chloramination disinfection process, a new effluent polishing channel, and a system that generates power and heat from biogas generated by digestion of sludge. This new treatment process effectively removes all harmful pollutants from the wastewater and is highly energy efficient. The upgraded treatment process will also enable the City to produce high-quality recycled water in the future.

In 2014, the City adopted a master plan to produce tertiary-quality recycled water and distribute it to east Paso Robles, where it may be safely used for irrigation of City parks, golf courses, and vineyards. The City recently amended its Municipal Code to require private properties within city limits that currently pump groundwater for irrigation (e.g., golf courses) to switch to recycled water when it becomes available. This will reduce the need to pump groundwater from the Paso Robles Groundwater Basin and improve the sustainability of the city's water supply.

In February 2016, the City approved the City of Paso Robles Tertiary Treatment Facilities Project for the construction of 4.9 mgd capacity tertiary treatment facilities within the existing developed footprint of the PRWWTP. The tertiary treatment facilities include a flow diversion box, flow equalization tanks, cloth media filtration, ultra-violet (UV) disinfection, recycled water pump station, a recycled water storage pond, and a distribution pipeline to deliver treated water to the California Department of Transportation for irrigation along the U.S. Highway 101 (US 101) corridor (SWCA Environmental Consultants [SWCA] 2016). The City is in the process of designing and permitting construction of the tertiary treatment facilities, and intend to complete construction and commission these facilities by 2018 (City of El Paso de Robles 2016b).

3.17.3.2 Water Supply

San Luis Obispo County

The project is located within the Salinas River and El Pomar-Estrella subareas of the North County Planning Area (see Figure 3.10-1, Planning Areas and Public Facilities). The water supply used in the Salinas River and El Pomar-Estrella planning subareas comes predominantly from wells in the Paso Robles Groundwater Basin (PRGB). Some water is also obtained from the alluvial deposits within the Salinas River and its tributaries (County of San Luis Obispo 2014).

The PRGB encompasses approximately 790 square miles (505,000 acres) in northern San Luis Obispo County and southern Monterey County (refer to Figure 3.17-1, Paso Robles Groundwater Basin). The basin supplies water for approximately 29% of the county's population and an estimated 40% of the agricultural production in the county. Agricultural water users constitute an estimated 67% of the pumpage in the basin and are concentrated on the alluvial valleys of the streams and rivers and along the State Route (SR-) 46 corridor (County of San Luis Obispo 2011a).

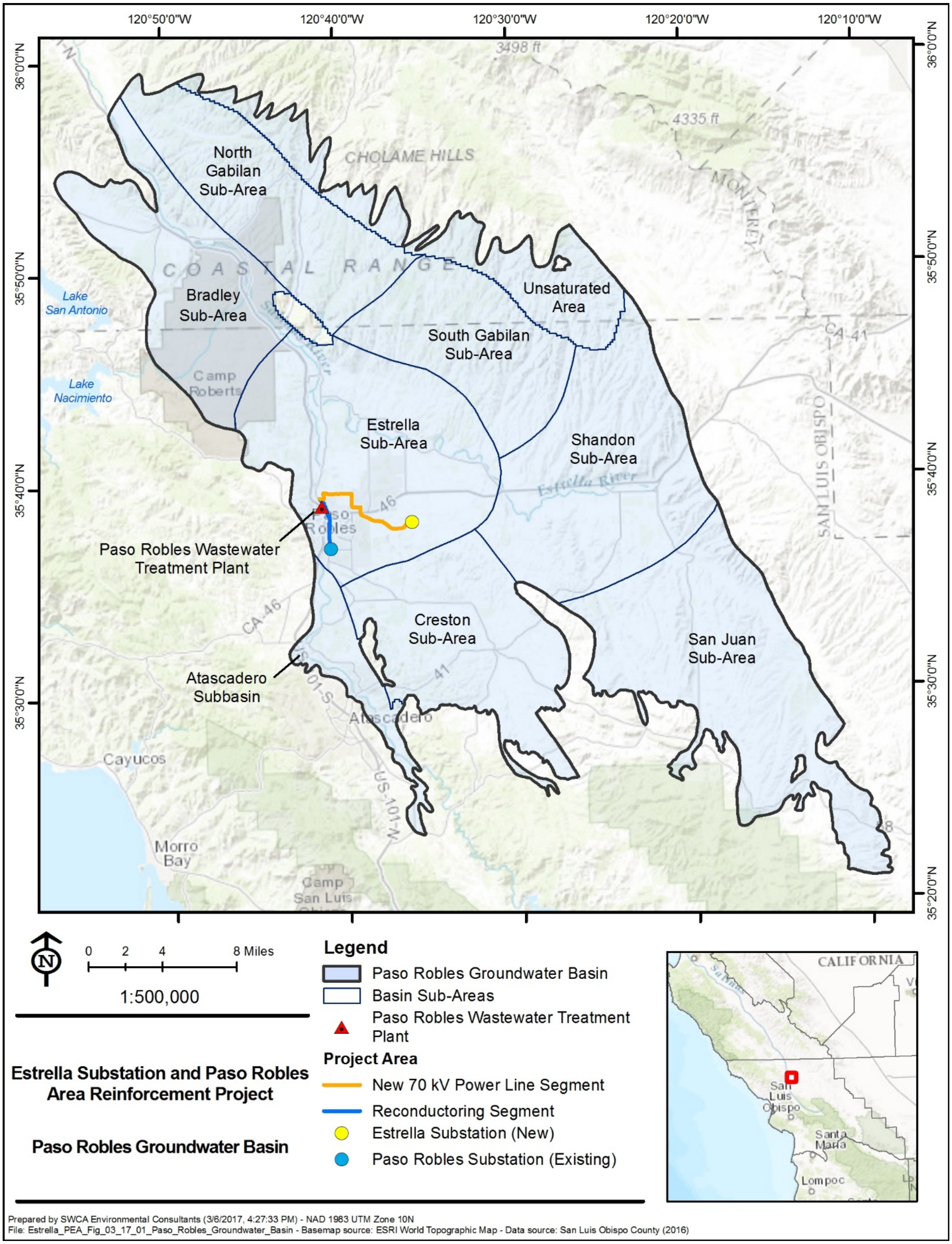
Most of the basin is hydraulically connected by thick sedimentary sections. The basin is divided into smaller subareas based on water quality, source of recharge, groundwater movement, and the contours of the base of permeable sediments (refer to Figure 3.17-1). These subareas are not hydrologically distinct. The Atascadero Subbasin is defined as that portion of the PRGB west of the Rinconada fault, and the fault zone is believed to form a leaky barrier that restricts flow from the Atascadero Subbasin to the main part of the groundwater basin. As a result, the Atascadero Subbasin is considered a hydrologically distinct subbasin within the PRGB.

The Estrella Subarea is located in the western portion of the PRGB and has an area of approximately 82,500 acres, which makes up about 16% of the area of the basin. This subarea includes Paso Robles and the San Miguel Communities Services District. Salinas River flows north, roughly paralleling US 101 through Paso Robles. Huerhuero Creek enters the subarea from the Creston Subarea and flows into Salinas River near Paso Robles. Estrella River flows from the Shandon Subarea and enters Salinas River north of the city.

Water use in the Estrella Subarea in 2006 totaled about 34,077 acre-feet, representing about 38% of total water use in the basin. There is a diverse group of water users in this subarea. About two-thirds of the pumping in this subarea is for agricultural uses. Rural and municipal users account for about one-third of the groundwater pumping. Water demands in the Estrella Subarea increased by about 6,300 acre-feet during the 1997 to 2006 period (County of San Luis Obispo 2011a).

A perennial (safe) yield of 97,700 acre-feet per year (afy) has been established for the PRGB. The perennial yield of a basin refers to the rate at which water can be pumped from wells without decreasing the water in storage to the point where a deleterious economic impact occurs. Perennial yield is not necessarily equal to "sustainable yield," which refers to the amount of water that can be extracted annually without eventually depleting an aquifer. No sustainable yield has been established for the PRGB. In 1997, total groundwater demand in the basin was approximately 76,404 afy, or 78% of the perennial yield. By 2006, demand increased to 89,473 afy, representing about 92% of the perennial yield. Projected groundwater demands are estimated to be almost 108,000 afy by the year 2025; this represents 110% of the estimated perennial yield (County of San Luis Obispo 2011a).

Figure 3.17-1. Paso Robles Groundwater Basin



Groundwater in the El Pomar-Estrella and Salinas River planning subareas is replenished primarily from recharge of surface runoff to several major and minor streams, notably Estrella River and Huerhuero Creek, and to a lesser extent from direct infiltration of precipitation. However, pumping has outpaced replenishment and groundwater levels basin-wide have been declining. The Estrella Subarea has been shown to have the greatest and most consistent decline of water levels in the basin since 1980, with groundwater elevations dropping as much as 70 feet between 1997 and 2009 (County of San Luis Obispo 2011a).

The PRGB has not been adjudicated but it has been designated as high priority and critically overdrafted by the state, requiring management under the Sustainable Groundwater Management Act. Additionally, a lawsuit has been filed against the City, County, and other water supply agencies in the PRGB, challenging their groundwater rights (City of El Paso de Robles 2016d).

City of Paso Robles

The City has historically relied on underflow from Salinas River and groundwater pumped from the PRGB for its municipal water supply. The City has eight river wells and currently pumps Salinas River water pursuant to appropriative surface water rights and a permit issued by the State Water Resources Control Board (SWRCB). The City also pumps groundwater from 13 deep basin wells in the PRGB.

This supply has been supplemented in recent years with water from Lake Nacimiento. The City holds a 6,488 afy delivery entitlement for Lake Nacimiento water with the San Luis Obispo County Flood Control and Water Conservation District. The Nacimiento Water Project, completed in 2010, consists of approximately 45 miles of pipeline to deliver untreated water from Lake Nacimiento to Paso Robles and other communities in San Luis Obispo County (City of El Paso de Robles 2016d).

Lake Nacimiento water is a supplemental water supply for the City and will not replace other water sources. By maintaining its Lake Nacimiento supply separately from its Salinas River supplies and local groundwater supplies, the City is able to further diversify its water supply portfolio and increase overall water supply reliability. In order to directly use its Lake Nacimiento supply, the City constructed the 2.4 mgd Nacimiento Surface Water Treatment Plant, which became fully operational in 2016. The City anticipates operating the Nacimiento plant approximately 5 to 9 months out of the year to serve peak summer demands, yielding approximately 1,120 afy to 2,017 afy. Treatment plant operation could be increased to provide up to 2,688 afy (City of El Paso de Robles 2016d).

In 2015, the City received 3,021 acre-feet of water from Salinas River wells, 2,045 acre-feet of water from PRGB groundwater wells, and 87 acre-feet of water from the Nacimiento Surface Water Treatment Plant (City of El Paso de Robles 2016d). As described above, the City has also approved the construction of tertiary treatment facilities at the existing PRWWTP to provide additional recycled water; construction of these facilities is estimated to be complete by 2018. The City is also in the process of planning an additional "purple line" distribution system to deliver tertiary treated water to agricultural areas north and east of the city limits.

Consistent with the 2014 City of Paso Robles Recycled Water Master Plan, the proposed recycled water distribution system will deliver tertiary treated water from the PRWWTP to an elevated storage reservoir in the vicinity of Barney Schwartz Park for delivery to agricultural areas north and east of the city. In addition, the City is also assessing the feasibility of delivering recycled water to strategic locations along the Huerhuero Creek corridor for direct or passive groundwater recharge during periods of low demand for recycled irrigation water (i.e., the rainy season).

The City's goal is to deliver at least 400 acre-feet of recycled water per year to in-city customers by 2019, with usage gradually increasing, such that at least 1,750 acre-feet of recycled water per year is delivered to a combination of in-city customers and agricultural users outside of city limits by 2024 (City of El Paso de Robles 2016b).

3.17.3.3 Stormwater Drainage

San Luis Obispo County

There is no formal stormwater drainage infrastructure in rural areas of the county, and most of the unincorporated communities within the county also lack formal stormwater infrastructure. The County currently uses the natural hydrology of the watershed to convey stormwater runoff to receiving waters. In areas lacking natural pathways for stormwater runoff, the County uses retention/detention basins to slow runoff and allow for infiltration. The County operates under a Phase II Municipal Storm Water Program under a Small Municipal Separate Storm Sewer Systems (MS4) General Permit, which requires implementation of a Stormwater Management Plan (SWMP) to reduce and eliminate pollutants in stormwater and non-stormwater discharges in portions of the unincorporated county areas as well as the Paso Robles urban fringe, which includes Templeton, Santa Margarita, and Garden Farms. Portions of the project power line components are located within the MS4 and SWMP management areas (County of San Luis Obispo 2003).

City of Paso Robles

Stormwater and drainage facilities within Paso Robles are owned and maintained by the City Department of Public Works. Paso Robles is also enrolled in the Phase II Municipal Storm Water Program under the City's MS4 General Permit, and implements an associated SWMP. Portions of the project power line components are located within the MS4 and SWMP management areas (City of El Paso de Robles, 2016c). Stormwater within the city is discharged into Salinas River.

3.17.3.4 Solid Waste Disposal

San Luis Obispo County

Refuse collection in the North County Planning Area is provided by the following companies: Paso Robles Country Disposal, Paso Robles Roll-Off, Paso Robles Waste Disposal Company, San Miguel Garbage Company, San Miguel Roll-Off, and Mid-State Solid Waste and Recycling. There are two solid waste disposal sites in the planning area—the Paso Robles Landfill, owned by the City, and the Chicago Grade Landfill in Templeton.

Solid waste generated in San Luis Obispo County is mostly residential waste, construction waste, commercial and industrial waste, and sludge residues (wastes remaining at the end of the sewage treatment process). In most cases, solid waste is hauled directly to major Class III landfills, and the remainder is taken to transfer stations, resource recovery centers, and composting facilities.

The Chicago Grade Landfill is a 76.4-acre permitted landfill on a 188-acre parcel at 2290 Homestead Road in Templeton, California. The Chicago Grade Landfill is a Class III facility and receives solid wastes, including household hazardous and recyclable materials, from Atascadero, Templeton, Santa Margarita, and the unincorporated area of San Luis Obispo County. The total permitted maximum capacity of the landfill is 8,950,220 cubic yards. In 2007, the landfill had 8,329,699 cubic yards, or 93%, of permitted capacity remaining. The current permitted maximum throughput capacity is 500 tons per day. The landfill is scheduled to close around 2042 (CalRecycle 2016).

City of Paso Robles

The City owns and operates the Paso Robles Landfill, just north of SR-46 approximately 8.5 miles east of Paso Robles. The Paso Robles Landfill is a Class III facility for solid waste, and has a total permitted maximum capacity of 6,495,000 cubic yards. As of October 2012, the landfill had 5,190,000 cubic yards, or 80%, of permitted capacity remaining. The Paso Robles Landfill's permitted maximum throughput capacity is 450 tons per day. The landfill is scheduled to close around 2051 (CalRecycle 2016).

3.17.3.5 Electricity and Natural Gas

PG&E provides electrical power to San Luis Obispo County, including Paso Robles. PG&E generates electricity from the following sources: (1) PG&E-owned generators; (2) non-PG&E-owned generators within California; and (3) out-of-state generators. About half of the electricity PG&E delivers is a clean energy power mix of renewable solar, wind, geothermal, biomass, and small-scale hydroelectric; large-scale hydroelectric; natural gas; and other clean energy sources. A network of high-voltage transmission lines carries electricity generated from power plants to substations and substations use transformers to decrease the voltage of electricity to connect with the distribution system.

Both PG&E and Southern California Gas provide natural gas within San Luis Obispo County. PG&E provides natural gas services in the majority of the county area, and Southern California Gas provides a service area extension in the county that includes portions of Paso Robles.

3.17.3.6 Communications

AT&T provides local and long-distance telephone service within San Luis Obispo County and Paso Robles. A variety of wireless companies, including AT&T, Comcast, Verizon, Sprint, and T-Mobile, provide wireless phone service in the county. Cable television and internet services are provided by Dish Network, DirecTV, Charter Communications, and other providers.

3.17.4 Applicant-Proposed Measures and Potential Impacts

The following sections describe significance criteria for impacts on utilities and service systems derived from Appendix G of the State CEQA Guidelines and assess potential project-related construction and operational impacts. The project will not result in any significant impact on utilities and service systems; therefore, APMs have not been included for this section.

3.17.4.1 Significance Criteria

According to Section 15002(g) of the State CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the State CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the State CEQA Guidelines, the potential significance of project impacts on utilities and service systems was evaluated for each of the criteria listed in Table 3.17-1, as discussed in Section 3.17.4.3, Potential Impacts.

3.17.4.2 Applicant-Proposed Measures

No APMs are proposed to further reduce already less-than-significant impacts.

3.17.4.3 Potential Impacts

Project impacts on utilities and service systems were evaluated against the CEQA significance criteria as discussed below. This section evaluates potential project impacts from both the construction phase and the operation and maintenance phase.

As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

The project proponents have taken into consideration the location of other underground and overhead utilities in designing the project. Additional utilities identification will occur in the final design stages. As required by state law, the project proponents will use USA North 811 to notify other utility companies to locate and mark existing underground structures at the substation and along the power line prior to any excavation or augering activities. In addition, the project proponents will probe and expose existing utilities, in accordance with state law, before using power equipment. The project proponents have conducted existing utilities surveys as part of their feasibility study and routing analysis. Based on these surveys and during detailed design, the project proponents will design the project to have no permanent impact on power, natural gas, communications systems, or any other utilities that are specifically documented.

Also during the detailed design phase, the project proponents will assess whether the temporary interruption of other utilities will be necessary. If deemed necessary, the project proponents will obtain timely approval from other utilities and closely coordinate with them until those utilities are returned to service. Prior to construction, the project proponents will obtain emergency contact information for utilities that may be in close proximity or require monitoring during construction of the project. In case of accidental service interruption to another utility, the project proponents will immediately contact the affected utility to coordinate actions to restore service in a safe and timely manner.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. No additional impacts to utilities and service systems are anticipated at this time as a result of this future project.

Impact Utilities-a: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? *(No Impact)*

Construction

Minimal amounts of additional wastewater will be generated by construction personnel during construction of the project. Temporary construction demands will be met by portable restroom and hand-washing facilities for construction workers. Wastewater will be handled in accordance with applicable regulations and permits, and waste will be disposed at appropriately licensed off-site facilities. Therefore, no wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB) will be exceeded and no impacts will occur.

Operation and Maintenance

Estrella Substation

Estrella Substation will not include new or expanded wastewater facilities. Operation and maintenance of Estrella Substation will be conducted by the project proponents' existing staff and no additional wastewater will be generated as a result of operational or maintenance activities. No wastewater treatment requirements of RWQCB will be exceeded and no impacts will occur.

Power Line Route

The power line route will not include new or expanded wastewater facilities. Operation and maintenance of the power line route will be conducted by the project proponents' existing staff and no additional wastewater will be generated as a result of operational or maintenance activities. No wastewater treatment requirements of RWQCB will be exceeded and no impacts will occur.

Impact Utilities-b: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? *(No Impact)*

Construction

Estrella Substation

Construction of Estrella Substation will not require service through any new or expanded water or wastewater treatment facilities. The project will not require development of any new groundwater wells. Temporary construction demands will be met by portable restroom facilities, hand-washing stations, and bottled water (as necessary) for construction workers. Existing water supply and wastewater facilities in the area will be sufficient to serve additional temporary construction needs, including dust control, concrete mixing, and minimal revegetation. As a result, no new or expanded water or wastewater treatment facilities will be required and no impacts on water or wastewater treatment facilities will occur.

Additional project construction water needs will be served by reclaimed water and/or through the City's existing allocations from existing fire hydrants and connections at Barney Schwartz Park.

Power Line Route

Construction of the power line route will not require service through any new or expanded water or wastewater treatment facilities. Temporary construction demands will be met by portable restroom facilities, hand-washing stations, and bottled water (as necessary) for construction workers, and existing water and wastewater facilities are sufficient to serve additional construction needs (i.e., dust control, concrete mixing). Power line construction will be served by reclaimed water. The water will be obtained from the City's wastewater treatment plant located at 3200 Sulphur Springs Road, existing fire hydrants and connections at Barney Schwartz Park, or existing fire hydrants along the power line route. No new or expanded water or wastewater treatment facilities would be required; therefore, the project would result in no impact to this criterion.

Operation and Maintenance

Operation and maintenance of Estrella Substation and the power line route will not require service through any new or expanded water or wastewater treatment facilities. Operation and maintenance activities will be conducted by the project proponents' existing staff and no permanent increase in water or wastewater demand will occur. Short-term irrigation to support revegetation of the project area after construction will not require expanded water facilities. Existing water and wastewater facilities are sufficient to serve necessary operation and maintenance activities; therefore, no impact will occur.

Impact Utilities-c: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? *(No Impact)*

Construction

Estrella Substation

Construction of Estrella Substation will not require service through any new or expanded stormwater or drainage facilities. Storm flows during construction will be managed under the project's construction general permit and its required Storm Water Pollution Prevention Plan (SWPPP). As a result, no impact will occur.

Power Line Route

Construction of the power line route will not require service through any new or expanded stormwater or drainage facilities. Storm flows in the unincorporated county areas will continue to percolate into the ground or follow the natural contours of the site. Larger pull sites needed for the power line route will implement SWPPP measures as required by the project's construction general permit. Any disturbed stormwater facilities or infrastructure will be restored to their original condition upon the conclusion of construction activities. No impact will occur.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will not require service through any new or expanded stormwater or drainage facilities. The 230 kV substation will be constructed with secondary containment design in accordance with U.S. Environmental Protection Agency SPCC requirements for oil containment in the event of a spill. A concrete secondary containment basin designed for oil containment will also be designed to allow sufficient freeboard to include the oil volume of the transformer plus the precipitation from a 25-year, 24-hour storm event. Following a storm event, rainwater collected in the containment area will be visually inspected for any contamination before allowing the water to drain. The 70 kV substation will be constructed with a concrete skimmer and weir device. This concrete device, working with local depressed and paved areas, will help settle and collect sediment that is washed down by stormwater before it is discharged from the substation. As a result, no impact will occur.

Power Line Route

Operation and maintenance of the power line route will not require service through any new or expanded stormwater or drainage facilities. Storm flows in the unincorporated county areas will continue to percolate into the ground or follow the natural contours of the site. Flows in the urbanized portions of Paso Robles will continue to flow into the City's existing stormwater system. As a result, no impact will occur.

Impact Utilities-d: Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? *(Less than Significant)*

Construction

Construction of Estrella Substation and the power line route will require water for dust control, construction uses, and construction personnel drinking water. The project proponents currently anticipate a total of approximately 10.3 million gallons of water will be required during construction. Approximately 75% of total water used will be for dust control during the construction period, and the remaining 25% will be for other construction needs such as concrete mixing.

The project proponents propose to obtain construction water from one or more of the following potential sources:

1. Existing groundwater well located adjacent to the substation site.

2. Recycled water from the PRWWTP upgrade. The feasibility of this option will depend on whether the construction of the tertiary treatment facilities is completed prior to construction of the substation.
3. Potable water from the City's existing fire hydrant system, including two hydrants located at Barney Schwartz Park.
4. Recycled water purchased from the Ravine Water Park (only available during certain times of year – summer).

The PRGB has been designated as critically overdrafted by the state and the current drought situation has created water shortages throughout California. However, use of one or more of these existing water supplies will be sufficient to serve the project's limited short-term construction water needs, particularly due to the substantial reduction in long-term water uses at the substation site, which currently consists of 15 acres of irrigated vineyard.

By way of comparison, vineyards in the Estrella subarea are estimated to require 1.25 acre-feet of water per acre each year (City of El Paso de Robles and San Luis Obispo County Department of Public Works 2009), which equates to an annual usage of approximately 18.75 acre-feet of water to maintain the existing vineyard on the project substation site. Based on the project substation construction water needs of approximately 32 acre-feet for construction and minimal operational water usage thereafter, the project would result in a net water savings in less than 2 years after project construction.

In the event that the project is served by reclaimed water, the City has committed to provide water to serve construction of the project with its existing available supplies of reclaimed water. Therefore, impacts related to water supply will be less than significant.

Operation and Maintenance

Operation and maintenance of Estrella Substation and the power line route will not generate an increase in existing water demand. To the contrary, the project will result in substantial long-term water savings compared to existing irrigated intensive agricultural uses. Further, operation and maintenance staff will utilize existing water supplies and no impact related to water supplies will occur.

Impact Utilities-e: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? *(No Impact)*

Construction

Minimal amounts of additional wastewater will be generated by construction personnel during construction of Estrella Substation and the power line route. Temporary construction demands will be met by portable restroom and hand-washing facilities for construction workers that will be serviced by a licensed contractor. Wastewater will be handled in accordance with applicable regulations and permits, and waste will be disposed at appropriately licensed off-site facilities.

Existing wastewater facilities have adequate capacity to accommodate the minimal increase in demand during construction; therefore, no impacts will occur.

Operation and Maintenance

Estrella Substation

Operation and maintenance of Estrella Substation will not require service through any new or expanded wastewater treatment facilities. Operation and maintenance personnel will utilize portable restroom facilities during routine operation and maintenance activity site visits, which will be maintained through contracted services, and no permanent increase in wastewater demand will occur. Therefore, no impact will occur.

Power Line Route

Operation and maintenance of the power line route will not require service through any new or expanded wastewater treatment facilities. No permanent increase in wastewater demand will occur. Therefore, no impact will occur.

Impact Utilities-f: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? *(No Impact)*

Construction

Estrella Substation

Construction of Estrella Substation will generate construction-related waste and common trash from construction activities and personnel. Construction debris and trash will be hauled off and disposed of at licensed facilities in accordance with applicable regulations. Available proximate landfills include the Chicago Grade Landfill and the Paso Robles Landfill. The Chicago Grade Landfill has approximately 8,329,699 cubic yards, or 93%, of permitted capacity remaining and is expected to remain in operation until the year 2042. The Paso Robles Landfill has approximately 5,190,000 cubic yards, or 80%, of permitted capacity remaining and is expected to remain in operation until the year 2051. Therefore, the solid waste demands of the project will be easily accommodated by existing proximate landfills and no impact will occur.

Power Line Route

Like Estrella Substation, construction of the power line route will generate construction-related waste and common trash from construction activities, including removed poles and facilities along the reconductoring segment, and from construction personnel. The solid waste demands of the project will be easily accommodated by existing proximate landfills; therefore, no impact will occur.

Operation and Maintenance

Operation and maintenance of Estrella Substation and the power line route will generate minimal amounts of solid waste (e.g., removed or replaced components requiring disposal, trash from maintenance personnel). The very minimal solid waste demands of the project will be easily accommodated by existing proximate landfills; therefore, no impact will occur.

Impact Utilities-g: Comply with federal, state, and local statutes and regulations related to solid waste? *(No Impact)*

Construction

All construction debris associated with construction of Estrella Substation and the power line route will be collected and hauled off-site for recycling or disposal during construction. Solid waste disposal will be conducted at licensed facilities in accordance with applicable regulations and the project proponents will comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, no impact will occur.

Operation and Maintenance

The minimal amounts of solid waste generated during operation and maintenance of Estrella Substation and the power line route will be collected and hauled off-site for recycling or disposal. Solid waste disposal will be conducted at licensed facilities in accordance with applicable regulations and the project proponents will comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, no impact will occur.

3.17.5 References

CalRecycle. 2016. Solid Waste Information System (SWIS) Facility/Site Search. Online: http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx. Accessed on August 19, 2016.

City of Paso Robles. 2003. *City of El Paso de Robles General Plan 2003. Land Use Element.* December 16, 2003. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/LandUseElement.pdf. Accessed August 19, 2016.

____. 2014. : https://www.chp.ca.gov/find-an-office/coastal-division/offices/(740)-templeton. Prepared by AECOM Water. Online:

____. . 2016a. City of El Paso de Robles Department of Public Works, Wastewater Division Website. Online: http://www.prcity.com/government/departments/publicworks/wastewater/index.asp. Accessed on August 17, 2016.

____. 2016b. *Request for Qualifications for Preliminary Design of Paso Robles Recycled Water Distribution System*.

____. 2016c. City of El Paso de Robles Department of Public Works, Storm Water Program Website. Online. http://www.prcity.com/government/departments/publicworks/stormwater/swmp.asp. Accessed on August 24, 2016.

____. 2016d. *City of Paso Robles 2015 Urban Water Management Plan*. July 2016. Prepared by Todd Groundwater. Online: http://www.prcity.com/government/departments/publicworks/water/pdf/UWMP_2015-Final.pdf. Accessed August 17, 2016.

City of Paso Robles and San Luis Obispo County Department of Public Works. 2009. *Evaluation of Paso Robles Groundwater Basin Pumping: Water Year 2006*. May 2009. Prepared by Todd Engineers.. Online: http://www.prcity.com/government/departments/publicworks/water/pdf/GBMP/plan/PasoBasin_FinalGMP.pdf. Accessed August 24, 2016.

County of San Luis Obispo. 2003. *National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Management Program, County of San Luis Obispo*. As amended through April 2007. Online: http://www.slocounty.ca.gov/Assets/PW/stormwater/April+2010+SWMP+Revision.pdf. Accessed July 2016.

____. 2011a. *Paso Robles Groundwater Basin Management Plan*. Online: http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/pdf/201103%20-%20Paso%20Basin%20Final%20GMP.pdf. Accessed July 2016.

____. 2011b. *Resource Capacity Study – Water Supply in the Paso Robles Groundwater Basin*. Online: http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/rcs.pdf. Accessed July 2016.

____. 2014. *County of San Luis Obispo Land Use and Circulation Elements (Part II), The Area Plans (Inland)*. February 2014. As amended through March 24, 2015. Online: http://www.slocounty.ca.gov/Assets/PL/LUCE/LUCE+Part+II+-+The+Area+Plans/!_Cover_Table_of_Contents.pdf. Accessed July 2016.

SWCA Environmental Consultants (SWCA). 2016. *CEQA Addendum to the Initial Study/Mitigated Negative Declaration for the City of Paso Robles Tertiary Treatment Project*. February 2016.

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3.18 MANDATORY FINDINGS OF SIGNIFICANCE AND CUMULATIVE IMPACTS

3.18.1 Introduction

This section discusses mandatory findings of significance and cumulative impacts related to the project. As described in Chapter 2.0, Project Description, the project includes construction and operation of Estrella Substation, approximately 7 miles of new 70 kV power line, and reconductoring of approximately 3 miles of existing 70 kV power line.

As discussed in Chapter 2.0, the project will provide a location within the 70 kV substation for a future 70/21 kV transformer and distribution facilities that are expected to be needed in the next 5 to 15 years. While the route for the future distribution feeders is uncertain, the feeders are expected to follow existing roadways and previously disturbed areas. Impacts associated with the approximately 4-month construction period for the future distribution facilities will be much less than those analyzed for the project. Furthermore, the construction schedules for the project and future distribution facilities are not expected to overlap. Therefore, potential impacts associated with this future distribution work will be incremental in nature and are analyzed along with project impacts, where applicable, throughout Chapter 3 and incorporated in the cumulative analysis below.

3.18.2 Mandatory Findings of Significance

The analysis presented in this section is based on consideration of the California Environmental Quality Act (CEQA) checklist questions presented in Table 3.18-1, CEQA Checklist for Mandatory Findings of Significance. As discussed further below, it has been determined that no substantial evidence exists that the project, when considering the whole record, will have a significant effect on the environment.

Table 3.18-1. CEQA Checklist for Mandatory Findings of Significance

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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, substantially reduce the	☐	☐	☒	☐

Table 3.18-1. CEQA Checklist for Mandatory Findings of Significance

Description	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☐	☒
c) Have possible environmental effects that are individually limited, but cumulatively considerable? Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
d) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) Would the project have 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; or eliminate important examples of the major periods of California history or prehistory? *(Less than Significant)*

The project will not 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, or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

Construction activities may have minor, short-term impacts on species habitat, populations, or communities, but will not substantially reduce species habitat, populations, or communities. Potential direct impacts may occur when species come into contact with construction vehicles or equipment. Given the generally marginal habitat for sensitive wildlife in the areas of construction, the potential direct take of a species, population, or community through habitat loss or modification is unlikely to occur. As the project is located predominately within active agricultural areas, existing roadways, and urban areas, the potential to degrade environmental quality is low. The project will not substantially reduce the habitat of a fish or wildlife species, as the project will be located predominately within existing agricultural and urban areas. No riparian habitats or sensitive natural communities occur within Estrella Substation. The power line route crosses over several riparian corridors including those along Huerhuero Creek and nine other unnamed ephemeral drainages. The project has been designed to avoid all riparian habitats; therefore, no habitat will be reduced as a result of power line construction. The project will not require any in-water construction or work in waterways and by nature will not fragment the landscape and/or isolate populations of wildlife, and will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. The project proponents will implement Applicant-Proposed Measure (APM) GEN-1 (WEAP Training Program) and APM BIO-1 (Conduct Pre-construction Survey(s) for Special-Status Species and Sensitive Resource Areas) through APM BIO-5 (Dead or Injured Special-Status Wildlife), which will further ensure that species habitats, populations, and communities are not substantially reduced.

Approximately 15 acres of marginally suitable foraging habitat for the San Joaquin kit fox (*Vulpes macrotis mutica*) and nesting habitat for migratory birds and pallid bat will be permanently impacted as a result of the construction of Estrella Substation. The loss of 15 acres of foraging and nesting habitat in agricultural land is insignificant compared to the abundance of quality foraging and breeding habitat in natural, open space areas southeast of the project substation site as well as surrounding vineyards, which may provide a mammalian prey base. Furthermore, construction of Estrella Substation does not restrict habitat used as migration corridors between the Salinas River and Pajaro River watersheds, the Carrizo Plain Natural Area, or the San Joaquin Valley. Construction during the nesting bird season could result in the displacement of breeding migratory birds and/or the abandonment of active nests. Implementation of APM GEN-1 and APM BIO-1 through APM BIO-5 will ensure that foraging and nesting habitat is not substantially reduced and wildlife populations are not threatened or substantially reduced.

Seasonal wetlands with adjacent grasslands were preliminarily mapped along the section of the new 70-kilovolt (kV) power line that has the potential to support vernal pool fairy shrimp (*Branchinecta lynchi*), California red-legged frog (*Rana draytonii*), and western spadefoot toad (*Spea hammondii*). The project has been designed and construction work areas have been selected to avoid suitable habitats for these species, thus ensuring that the project will not substantially reduce such habitats. Based on the findings from a November 2016 California red-legged frog site assessment and documented occurrences in the region, red-legged frogs have potential to occur in the project area. The project proponents will implement APM GEN-1 and APM BIO-1 through APM BIO-4 (Special-Status Species Protection), which will help ensure that this population does not drop below self-sustaining levels and is not threatened by elimination of its community or substantially reduced in number or range.

The project will not eliminate important examples of the major periods of California history or pre-history. Cultural resources surveys and records searches identified 22 cultural resources within the project study area. These resources include 11 historic period buildings and structures, 3 archaeological sites, and 8 isolated objects. Of these, only one built environment resource—the Johnson House (2965 Union Road)—is recommended eligible for listing in the California Register of Historical Resources (CRHR) under Criteria 1 and 3. The remaining 10 buildings or structures are either not eligible for the CRHR or require further research to determine their eligibility for listing on the CRHR and will be avoided by construction. The eight isolates do not qualify as historical resources under CEQA. Three of the archaeological sites (36052-S-001, 36052-S-002, and 36052-S-003) have not been evaluated for CRHR eligibility, and therefore are treated as potentially eligible and will be avoided by the project. If avoidance of a site is not feasible, the site will be subject to Phase II testing and evaluation to determine if it qualifies as an important example of the major periods of California history. In the unlikely event that such resources are discovered during construction activities, APM CUL-3 (Inadvertent Discoveries) will be implemented so that the project will not eliminate important examples of major periods of California history or prehistory. The project proponents will implement APM GEN-1 (WEAP Training Program) and APM CUL-1 (Retain a Qualified Principal Investigator) through APM CUL-6 (Archaeological Construction Monitoring); therefore, no important examples of major periods of California history will be eliminated and any impact on such a resource will be less than significant.

Similarly, the project will not eliminate an important example of major periods of California pre-history. The results of the combined literature and geologic mapping reviews, museum records searches, and field investigation revealed that, while the majority of the surface of Estrella Substation and the 70 kV power line route is currently covered in agricultural or urban development, the subsurface immediately below the agricultural disturbance is comprised of either older alluvium or the Paso Robles formation, both of which have high paleontological sensitivity (PFYC 4b). However, with implementation of APM GEN-1 and APM PALEO-1 (Retain a Qualified Principal Investigator) through APM PALEO-4 (Fossil Recovery), no important examples of major periods of California pre-history will be eliminated and any impacts will be less than significant.

b) Would the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals*? (No Impact)*

The project will not achieve short-term environmental goals to the disadvantage of long-term environmental goals and will result in either no impact or less-than-significant impacts in both the short and long term. Potential project short-term impacts (construction phase) and long-term impacts (operation and maintenance phase) are less than significant, are compatible with local environmental goals, and will not conflict with federal, state, or local environmental policies and regulations. Therefore, no impact will occur.

c) Would the project have possible environmental effects that are individually limited, but cumulatively considerable? Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)*? (Less than Significant)*

A cumulative impact analysis for each resource area is presented in Section 3.18.6, Cumulative Impacts Analysis by Resource Area. The project will contribute incrementally to cumulative impacts in the project area related to air quality, greenhouse gas (GHG) emissions, hazardous materials, traffic, water quality, and biological resources; however, the project will not contribute substantially to those cumulative impacts, which are generally short-term. Thus, the project will not have environmental effects that are individually limited but cumulatively considerable. Therefore, the impact will be less than significant.

d) Would the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? *(Less than Significant)*

The project will not adversely affect human beings, either directly or indirectly. Potential construction impacts associated with human health include the presence of hazards, hazardous materials use, and temporary air quality and GHG impacts. As discussed in Section 3.3, Air Quality, Section 3.7, Greenhouse Gas Emissions, and 3.8, Hazards and Hazardous Materials, respectively, construction impacts associated with air quality, GHGs, and hazards and hazardous materials will be less than significant. Implementation of APMs will further reduce the potential for adverse effects. The project will have a beneficial effect on human beings in the project area by decreasing groundwater use and increasing electrical service reliability. Therefore, the impact will be less than significant.

3.18.3 Cumulative Impact Analysis

Cumulative impacts, as defined in Section 15355 of the CEQA Guidelines, refer to two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. A cumulative impact is the change in the environment that results from the incremental impact of a project when added to other closely related past, present, or reasonably foreseeable future projects. Cumulative impacts can result from effects that are minor when viewed individually but significant when the effects of multiple projects are viewed collectively over time. Pertinent guidance for the analysis of cumulative impacts is provided in Section 15130 of the CEQA Guidelines:

- Cumulative impacts of a project should be discussed when the project's incremental effect is "cumulatively considerable" (i.e., the incremental effects of an individual project are considerable when viewed in connection with the effects of past, current, and probable future projects, including those outside the control of the CEQA Lead Agency, if necessary).
- The cumulative impact analysis need not discuss impacts that do not result in part from the project being evaluated.

- A project's contribution is less than cumulatively considerable, and thus not significant, if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- The discussion of impact severity and likelihood of occurrence associated with the cumulative projects need not be as detailed as the discussion of project-specific impacts.
- The focus of analysis should be on the cumulative impact to which the identified other projects contribute, rather than on attributes of the other projects that do not contribute to the cumulative impact.

3.18.3.1 Approach to Cumulative Analysis

CEQA Guidelines Section 15130(b)(1) provides two approaches to a cumulative impact analysis. Cumulative impacts can be determined based on: (1) a list of past, present, and probable future projects producing similar or related effects on the same resources, or (2) a summary of projections contained in a general plan or related planning document or in an adopted or certified environmental document that described or evaluated regional or area-wide conditions contributing to the cumulative impact. This cumulative analysis employs the list-based approach. The following factors were used to determine an appropriate list of cumulative projects to be considered:

- **Similar Environmental Impacts.** A relevant cumulative project could contribute incremental effects on the same resources that would also be affected by the project. The cumulative impact analysis need not discuss adverse effects that could result from implementation of the cumulative projects if similar effects will do not result from the project being evaluated.
- **Geographic Scope and Location.** The geographic scope for the cumulative analysis varies by resource topic and is specific to the potentially affected resource. A relevant project is located within the defined geographic scope for the cumulative effect.
- **Timing and Duration of Implementation.** Relevant projects typically involve activities (e.g., construction or long-term maintenance and operational activities) that would likely coincide in timing with the effects of the project (e.g., either overlap or occur immediately prior to or after the project). Construction of the project would span approximately 7 months and is anticipated to commence November 2018 (from the August permit issue date) and be completed in June 2019.

An analysis of potential cumulative impacts for each relevant resource topic is provided in Section 3.18.3.4, Cumulative Impact Analysis by Resource Topic. The cumulative analysis assumes implementation of all APMs, and evaluates the residual effects of the project after APM implementation.

3.18.3.2 Cumulative Projects Considered in this Analysis

Past, present, and reasonably foreseeable, probable future projects within a 2-mile radius of the substation and a 1-mile radius of the power line route are shown on Figure 3.18-1. Planned and Current Projects in the Vicinity of the Project, and listed in Table 3.18-2, Cumulative Projects.

For the purpose of this analysis, a reasonably foreseeable, probable future project is a project that has approved funding and/or for which an application has been filed with the approving agency.

Although it is possible that some of the reasonably foreseeable future projects will not be approved or will be modified prior to approval, this cumulative analysis is premised on the approval and construction of all of the identified reasonably foreseeable projects. Information regarding cumulative projects was obtained online from the County of San Luis Obispo (County) (for development projects in unincorporated areas), City of El Paso de Robles (City) (for development projects in the incorporated area), California Public Utilities Commission (CPUC) (for transmission projects), California Energy Commission (CEC) (for power plant projects), California Independent System Operator Corporation (CAISO) (for transmission projects), and California Department of Transportation (Caltrans) (for roadway projects) websites, with additional input from County and City planning staff.

The cumulative projects considered in this analysis include projects from the River Oaks Master Plan Development, several residential and commercial projects, PG&E's future distribution project, an industrial project (Paso Robles Wastewater Treatment Plant Expansion), and a transportation project (Highway 46 Corridor Improvement Project), indicating the region is planned for continued growth. Commercial projects largely consist of lodging, hospitality, and winery-related developments. The cumulative projects are located in the City of Paso Robles and in unincorporated San Luis Obispo County. Cumulative projects whose construction disturbance area is anticipated to overlap geographically with the construction disturbance area of the project are indicated in Table 3.18-2 by **bold text.** Cumulative projects whose construction schedule could overlap in timing with the construction of the project are indicated by *italicized text.*

Figure 3.18-1. Planned and Current Projects in the Vicinity of the Project

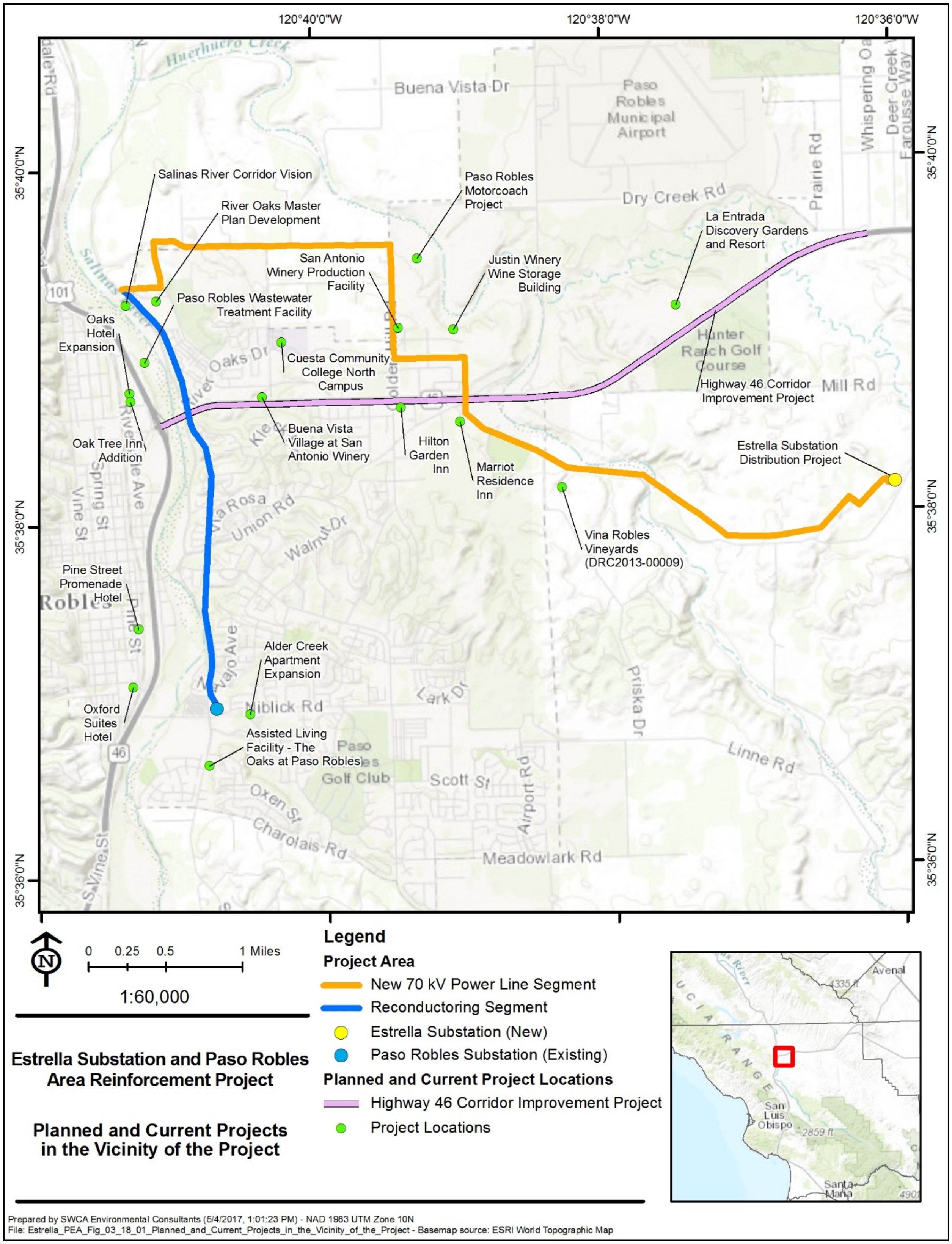

Table 3.18-2. Cumulative Projects[1]

Name	Location	Proximity to Project	Project Type	Description	Implementation Status / Schedule
Paso Robles Wastewater Treatment Facility	**3200 Sulphur Springs Road**	**400 feet west of reconductoring segment**	**Reclaimed Water/Industrial**	**Tertiary treatment facility on 69 acres. Project also includes construction of new pipeline extension along U.S. Highway 101 (US 101) corridor to deliver recycled water to Caltrans.**	**Scheduled to begin construction in late 2016, with completion in 2018.**
Pine Street Promenade Hotel	*945 Pine Street*	*0.5 mile west of reconductoring segment*	*Lodging*	*New hotel comprised of 200,000 square feet (sf), including 121 rooms, 3,600 sf of meeting rooms, 16,900 sf of commercial space, a 5,800-sf restaurant, a 500-seat performing arts center, and parking structure.*	*Construction scheduled to begin in 2017.*
Oak Tree Inn Addition	3003 Riverside Avenue	0.4 mile west of reconductoring segment	Lodging	Hotel addition on 50,000 sf.	Building permit application submitted. Demo permit for existing residences approved October 2016. Construction schedule unknown.
Oaks Hotel Expansion	3002 Riverside Avenue	0.4 mile west of reconductoring segment	Lodging	Hotel expansion to add 66 rooms, conference room, and spa on 3,000 sf.	Currently under construction.

[1] **Bold text i**ndicates cumulative projects whose construction disturbance area is anticipated to overlap geographically with the construction disturbance area of the project.
Italicized text indicates cumulative projects whose construction schedule could overlap with the construction schedule of the project.

Table 3.18-2. Cumulative Projects[1]

Name	Location	Proximity to Project	Project Type	Description	Implementation Status / Schedule
San Antonio Winery Production Facility	**2018 Wisteria Lane**	**West side of new 70 kV power line segment; approximately 3.3 miles west of Estrella Substation**	**Winery**	**Development of new and phased wine production facility of 5.2 acres.**	**Construction complete. Facility opened September 2016.**
Paso Robles Motorcoach Project	**Golden Hill Road north of State Route (SR-) 46**	**Along east side of new 70 kV power line segment; approximately 3.3 miles west of Estrella Substation**	**Residential Agriculture Planned Development**	**Proposed Recreational Vehicle (RV) Park with 322 spaces on 160.5 acres. Fifty acres will be developed and remaining area will be preserved as open space for agricultural uses.**	**Currently under construction. Project scheduled to be completed in 2017.**
Oxford Suites Hotel	Southwest corner of 4th and Pine Streets	0.5 mile west of reconductoring segment	Lodging	New hotel development comprised of 99,800 sf, including 127 rooms.	Zoning permit approved 2015. Project scheduled to be completed in 2017.
Justin Winery Wine Storage Building	***2261 Wisteria Lane***	***Approximately 760 feet north of new 70 kV power line segment; approximately 3 miles west of Estrella Substation***	***Winery Storage Building***	***Development of 212 acres for business, commercial services, and open space.***	***Project approved 2016. Construction schedule unknown.***
Assisted Living Facility - The Oaks at Paso Robles	*Southwest corner of South River Road and Serenade Drive*	*Approximately 0.3 mile south of reconductoring segment*	*Residential Multi-family*	*New assisted living facility on 2.8 acres (68,000 sf). Includes 73 rooms, 24 memory care units, and 39 parking spaces. Project is proposed to be 3 stories in height and 1 story for the memory care facility.*	*Project approved 2016. Construction schedule unknown.*

Table 3.18-2. Cumulative Projects[1]

Name	Location	Proximity to Project	Project Type	Description	Implementation Status / Schedule
Marriot Residence Inn	2940 Union Road	Approximately 365 feet southwest of new 70 kV power line segment	Lodging	New 4-story hotel with 119 rooms and 132 parking spaces on 2.3 acres (98,400 sf).	Zoning permit approved in 2015. Project approved 2016. Construction schedule unknown.
Alder Creek Apartment Expansion	713 Gardenia Circle	Approximately 0.3 mile southeast of reconductoring segment	Residential Multi-family	New development of 4 apartment buildings for 16 residences and driveway and parking spaces on 1.5 acres. Includes redesignating 0.9 acre of land from Residential Multi-family low density to Parks and Open Space.	Project approved 2016. Construction schedule unknown.
La Entrada Discovery Gardens and Resort	North side of SR-46	1.4 miles east of new 70 kV power line segment; 1.8 miles northwest of Estrella Substation	Resort/Lodging	New resort development on 386 acres to include 280-room resort hotel, with dining facilities, conference facilities, health spa, gardens, wine center, 3-hole golf academy, botanical education center, and outdoor exhibition area.	Approved May 2014. Currently under construction.
River Oaks Master Plan Development	**City of Paso Robles** **North of SR-46 East, west of Buena Vista Drive, and east of the Salinas River.**	**Adjacent to the south of new 70 kV power line segment; on both sides of reconductoring segment; 4.7 miles northwest of Estrella Substation**	**Residential/ General Plan Amendment**	**City General Plan Amendment to include new residential development with 271 residential units on approximately 113 acres, located within Subarea A of Borkey Area Specific Plan area.**	**Permit pending; public review period: April 11, 2016 to May 10, 2016. Approved June 2016.**

Table 3.18-2. Cumulative Projects[1]

Name	Location	Proximity to Project	Project Type	Description	Implementation Status / Schedule
Buena Vista Village at San Antonio Winery	2610 Buena Vista Drive	0.5 mile east of reconductoring segment; approximately 0.9 mile west of new 70 kV power line segment	General Plan Amendment	Request for General Plan Amendment to modify existing RSF-1 land use designation to Residential Multi-Family Low Density with a Mixed-Use Overlay.	Approved and completed.
Hilton Garden Inn	2348 Golden Hill Road	0.4 mile west of new 70 kV power line segment	Lodging	New development for 3-story hotel, in two phases, on 3.43 acres and 2 separate parcels. Hotel includes 166 guest rooms and 176 parking spaces.	Currently under construction.
Highway 46 Corridor Improvement Project	*5-mile section of SR-46 from US 101 east to Jardine Road*	*Improvement areas cross reconductoring segment and new 70 kV power line segment*	*Transportation*	*Plan to develop 20-year improvement strategy for 5-mile section of SR-46 East from US 101 to Jardine Road.*	*Eastern segments (outside of project area) currently under construction; improvements in project area have been completed.*
Salinas River Corridor Vision	*Roads and trails adjacent to Salinas River*	*Approximately 275 feet west of reconductoring segment*	*Land Management Plan for the Salinas River Parkway Preserve.*	*Ongoing development of natural open space that will include both transportation and recreation with foot and bike paths as well as equestrian paths. City is acquiring 19-acre parcel at north end of river planning area for recreation purposes.*	*Construction schedule unknown.*
Vina Robles Vineyards (DRC2013-00009)	*1150 Priska Drive*	*South side of new 70 kV power line segment; 2.2 miles west of Estrella Substation*	*Winery*	*Construction of 80,680-sf winery to produce yearly maximum of 100,000 cases; no public tasting room or events facilities are planned.*	*Approved in 2014. Permit extended in 2015. Construction schedule unknown.*

Table 3.18-2. Cumulative Projects[1]

Name	Location	Proximity to Project	Project Type	Description	Implementation Status / Schedule
Cuesta Community College North County Campus	2800 Buena Vista Drive	Roughly 1 mile south of 70 kV power line segment and 1 mile east of reconductoring segment	Educational facility	Six large modular buildings are being dismantled to make way for a 43,000-square-foot Campus Center.	Approved in 2014. Construction is anticipated to begin mid-2017 and take 18 months to complete.
Estrella Substation Distribution Project	**As discussed in Chapter 2, the project will provide a location within the 70 kV substation for a future 70/21 kV transformer and distribution facilities.**	**Estrella Substation site. While the route for the future distribution feeders is uncertain, the feeders are expected to follow existing roadways and previously disturbed areas.**	**Energy infrastructure**	**One 70/21 kV transformer and three distribution feeders.**	**Expected to be needed in the next 5 to 15 years. Construction is anticipated to take approximately 4 months to complete.**

3.18.3.3 Cumulative Impact Analysis by Resource Area

Aesthetics

Since the project will have no impact on scenic vistas, no cumulative impact related to scenic vistas will result. As explained below, no other potential aesthetic impacts will be cumulatively considerable.

The geographic scope for cumulative impacts to aesthetic resources encompasses the public vantage points from which the project is visible. The analysis focuses on locations from which a viewer could see the project facilities as well as the facilities that will be constructed by other projects in the cumulative scenario. The timeframe during which the project could contribute to cumulative aesthetic impacts is the 7-month construction period, as well as the operations phase. The incremental effects of the project combined with those of one or more of the cumulative projects listed in Table 3.18-2, above, would result in a significant cumulative impact on aesthetic resources if the effects substantially modify or disrupt scenic resources or scenic roadways, or collectively result in degradation of the visual character or quality of the area. A significant impact would also occur if the project and cumulative projects create new substantial sources of light and glare that affect the common receptors.

Project construction activities will be completed in approximately 7 months. Construction of the proposed facilities will result in vegetation removal, ground disturbance, and the presence of construction workers, construction vehicles, heavy construction equipment, and temporary structures at the active construction sites. Although project construction activities could temporarily disrupt visual quality, the project's construction-related impacts on aesthetic resources will be less than significant due to the temporary nature of the disruption. As indicated in Table 3.18-2, the construction schedules of up to five cumulative projects could overlap with the construction schedule for the project and potentially result in cumulative construction impacts on visual resources. However, even under the worst case scenario where the project and the five corresponding projects are constructed concurrently, the cumulative effect will not be significant because of the temporary nature of the disruptions and the project's contribution will not be cumulatively considerable.

Estrella Substation will be located at the approximately 15-acre substation site adjacent to Union Road. The site is surrounded by relatively flat to gently sloping terrain dominated by vineyards and row crops organized into rectangular parcels, bisected by a grid of paved and unpaved roadways. The site is located approximately 1.5 miles south of State Route (SR-) 46, an eligible state scenic highway. There are no scenic resources (trees, rock outcroppings, or historic buildings) at the substation site, and the site is not visible from SR-46 or any other scenic vistas or roadways. Existing 230 kV and 500 kV transmission lines are located immediately adjacent to the substation site, and local distribution circuit poles and lines exist in the landscape.

Views of the substation site from motorists traveling on Union Road are partially screened by the existing topography. The structures (e.g., towers, fences, conductors, and substation infrastructure) that will dominate the substation site will be inconsistent with the scale of the surrounding rural agricultural and residential landscape, but implementation of APM AES-1 (Substation Hardscaping) will help the structures blend in with the landscape and reduce the project's effect on visual quality and character of the surrounding area. In addition to the future distribution project located at and near Estrella Substation, the closest cumulative projects to the substation site that will construct new aboveground structures are the Vina Robles Vineyards and La Entrada Discovery Gardens and Resort projects, both of which are located about 2 miles away. No single receptor will have views of both the new substation and the structures associated with the cumulative projects. Further, the cumulative effect on overall visual quality and character of the area will not be substantial. Therefore, the incremental change in the visual landscape associated with the new substation will not be cumulatively considerable.

The limited permanent lighting or light sources that will be required for operation of the substation will be shielded to reduce impact on nighttime views. The impact will be less than significant and implementation of APM AES-2 (Light and Glare Reduction) will further reduce the potential for the implementation of the project to result in light and glare that could adversely affect other receptors. The cumulative projects on Union Road (Vina Robles Vineyards and Marriot Residence Inn) will also include permanent nighttime lighting but will not be in the same view shed and, like the project, the lighting is anticipated to be designed to minimize adverse effects. Permanent lighting associated with the project and other cumulative projects will remain visible to vehicles on Union Road but will be consistent with other existing light sources along Union Road and similar roadways in the region. The incremental change of the project on light and glare will not be cumulatively considerable.

High-voltage transmission lines as well as local distribution lines and their support structures exist in the project area and immediate vicinity. An existing 70 kV power line segment will be reconductored as part of the project. Since this work is for an existing power line, the reconductoring segment of the project will not substantially affect the visual setting and character of the area. Views of the new 70 kV power line segment will cross and be visible from SR-46, an eligible scenic roadway. The power line will also be visible from other public vantage points and roadways but not from any designated scenic roadways. About 3.5 miles of the 7-mile-long new 70 kV power line segment will be located directly alongside other existing overhead utility lines.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Simulations illustrating Estrella Substation and Estrella Substation with future distribution are provided from KOP 1. After implementation of APM AES-1 (Substation Hardscaping) and APM AES-2 (Light and Glare Reduction), permanent impacts from the project will be reduced to less than significant. The future distribution transformer and substation facilities will be located wholly within the substation site, and the distribution feeders will most likely be in existing easements or along existing roadways. The incremental effects of the project combined with the Estrella Substation Distribution Project will not result in a significant cumulative impact on aesthetic resources because there will be no substantial degradation to the visual character or quality of the area, and no new substantial sources of light and glare.

The River Oaks II Expansion project (located in the northeastern area of Paso Robles, north of SR-46, west of Buena Vista Drive, and east of Salinas River) will have views of the new 70 kV power line segment. Key Observation Points (KOPs) 6 and 7 (refer to Section 3.1, Aesthetics) shows the existing visual character in the vicinity of this cumulative project site. The expansion project is part of the River Oaks Master Plan Development, a master-planned village that includes 7 residential neighborhoods and 250 homes. Although the expansion project has not yet been constructed, this analysis considers the future residences of the development project to be potentially affected receptors in the existing condition because it is part of the approved master plan development.

The homes at the northern edge of the expansion project site currently have views of wood distribution poles and overhead conductors that traverse the agricultural lands in the foreground and will also have views of the new 70 kV power line segment. Some of the existing wood distribution poles and conductors were constructed as part of another cumulative project, the Paso Robles Wastewater Treatment Facility. The addition of the new 70 kV power line segment in combination with the utility lines of the Paso Robles Wastewater Treatment Facility and any other overhead utility lines that could be installed by future projects will not result in a substantial adverse change to the visual character because the overhead utility lines are consistent with similar existing infrastructure in the surrounding rural and agricultural landscape. Therefore, the project's contribution will not be cumulatively considerable.

Agricultural and Forestry Resources

As analyzed in Section 3.2, Agricultural and Forestry Resources, the project will have no impact on forestry resources and thus there will be no cumulative impact related to forestry resources. As explained below, no potential impacts on agriculture will be cumulatively considerable.

The geographic scope for cumulative impacts on agriculture is San Luis Obispo County. Where project facilities are proposed on lands that are currently designated for agricultural uses and/or are currently protected by Williamson Act contracts, the new project facilities will preclude the use of the underlying land for agricultural purposes. Since these are effects that result from facility siting, the timeframe during which the project could contribute to cumulative farmland impacts is limited to the 7-month construction period. In addition, lands under Williamson Act contract may also support uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" subject to the contract (California Government Code Section 51201[e]). Under Government Code Section 51238, electric facilities are a compatible use. Once construction has been completed, the project will have no further effects on agricultural resources.

Cumulatively significant impacts on agricultural resources could result if the incremental effects of the project related to the conversion of farmland, when viewed in combination with the incremental effects of cumulative projects, were to result in the conversion of a large area of designated farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Significance) to nonagricultural uses, or result in substantial conflicts with existing agricultural zoning or Williamson Act contracts. This cumulative analysis uses the same threshold that was used in the project-level analysis and considers the permanent conversion of 10 or more acres of Prime Farmland, and/or 40 or more acres of Farmland of Statewide Importance, Unique Farmland, and Williamson Act lands to be a significant cumulative impact to agricultural resources.

As shown in Table 3.2-8, Permanent Farmland Conversion, in Section 3.2, the project will result in the permanent conversion of roughly 15.9 acres of farmland to nonagricultural uses. Of this, about 14.4 acres is Farmland of Statewide Importance and Unique Farmland, 1.4 acres is

Farmland of Local Importance, Farmland of Local Potential, and Grazing Land, and less than 0.01 acre is Prime Farmland. In addition, approximately 15 acres of land that is currently under a Williamson Act contract will be converted to nonagricultural uses to accommodate the substation.

Nonagricultural cumulative projects located on agricultural land could have the potential to contribute to cumulative impacts to farmland and agricultural resources. However, based on review of the latest Farmland Mapping and Monitoring Program (FMMP) inventory for San Luis Obispo County (Department of Conservation [DOC] 2015), the 2015 map of Williamson Act contracts in the project vicinity, and Figure 3.18-1, Planned and Current Projects in the Vicinity of the Project, none of the nonagricultural cumulative projects presented in Table 3.18-2 will result in the permanent conversion of Farmland of Statewide Significance, Unique Farmland, or Prime Farmland to nonagricultural uses. Therefore, there will be no cumulative impact related to the conversion of designated farmland to nonagricultural uses.

Since none of the cumulative projects are located on Williamson Act land, there will be no cumulative effect related to this issue. Three nonagricultural cumulative projects—La Entrada Discovery Gardens and Resort, River Oaks Master Plan Development, and Paso Robles Motorcoach Project—have the potential to result in the permanent conversion of grazing land to nonagricultural uses. The precise acreages of grazing land that will be converted by the cumulative projects are not known. However, given that the project will only convert 0.4 acre of grazing land to nonagricultural uses and there are more than 1,500,000 acres of grazing land remaining in the county, the project's contribution to conflicts with existing zoning for agricultural use will be negligible and is not cumulatively considerable.

Air Quality

As analyzed in Section 3.3, Air Quality, the project will not conflict with or obstruct implementation of the applicable air quality plan; therefore, no cumulative impact related to this issue will result. As explained below, no other potential air quality impacts will be cumulatively considerable.

The geographic scope for the cumulative air quality analysis encompasses the South Central Coast Air Basin. The project could contribute to cumulative air quality effects during the approximately 7-month construction phase as well as the operational phase. In developing thresholds of significance for air pollutants, the San Luis Obispo County Air Pollution Control District (SLOAPCD) considered the emission levels for which a project's individual emissions will be cumulatively considerable.

Construction of the project will result in temporary, localized air emissions associated with construction equipment engine exhaust, worker commute trips, materials delivery, and fugitive dust over an approximately 7-month period. Unmitigated, project construction emissions will exceed SLOAPCD's thresholds. However, the prescribed APMs incorporate SLOAPCD's standard mitigation measures and best available equipment control technology and address these short-term emissions. Construction activities associated with cumulative projects that occur within 4 months of the construction activities of the project will result in a cumulative increase in construction-related emissions. However, all projects within SLOAPCD's jurisdiction, including the cumulative projects, are subject to SLOCAPCD's rules and regulations that are aimed at reducing construction emissions. Because implementation of the prescribed APMs will reduce the project's construction emissions below the thresholds, the project's temporary, incremental contribution to cumulative impacts related to the exceedance of air quality standards during construction is not cumulatively considerable (less than significant).

The project is within a non-attainment area for ozone and PM_{10} (particulate matter less than 10 microns in diameter). The potential for the project to result in a cumulatively considerable net increase of criteria pollutants for which the region is in non-attainment status was evaluated in the project level analysis and was determined to be less than significant with mitigation (see Impact Air Quality-c in Section 3.3 for further discussion).

With respect to the exposure of sensitive receptors to substantial pollutant concentrations, several sensitive receptors have been identified within 1 mile of the project area. Sensitive receptors will be exposed to diesel particulate matter and other toxic air contaminants generated by the construction equipment that is needed to construct the project for approximately 7 months or less. Cumulative projects with construction schedules that have the potential to overlap with the construction schedule of the project are also expected to generate diesel particulate matter emissions. While cumulative emissions could be substantial, due to the limited exposure period and partly linear construction, emissions of diesel particulate matter and other toxic air contaminants generated during construction of the project and cumulative projects will not result in a significant cumulative impact, and the projects' contribution will not be cumulatively considerable.

Project construction will result in diesel emissions-based odors that may result in a negligible and short-term effect on nearby sensitive receptors. Cumulative projects located nearest to the project's construction work areas and whose construction schedule could potentially overlap with that of the project could also contribute to increases in diesel emissions-based odors. However, because such increases will be limited in duration and extent, no cumulatively significant effect related to odors is expected (less than significant).

Emissions of air quality pollutants that will be generated during project operations and maintenance are primarily associated with monthly site visits to each substation by facility operators, and the annual use of a helicopter to inspect the power line route. Emissions generated during project operations and maintenance activities will thus be minimal, and not exceed SLOAPCD's thresholds.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Construction of the Estrella Substation Distribution Project would not occur at the same time as construction of the project, and construction of the future transformer and distribution facilities will not result in short-term emissions that exceed SLOAPCD thresholds. The addition of the 70 kV transformer and distribution facilities would have no measureable effect on operations- and maintenance-related emissions at Estrella Substation. Therefore, the project's contribution to long-term air quality emissions will not be cumulatively considerable.

Project operation and maintenance activities will not cause detectable odors. Exhaust odors generated by maintenance vehicles may be detectable in the immediate vicinity of the vehicles, but will not affect a substantial number of people. Therefore, no cumulative impact related to objectionable odors will result.

Biological Resources

As analyzed in Section 3.4, Biological Resources, the project does not conflict with the provisions of an adopted habitat conservation plan or other approved local, regional, or state habitat conservation plan. As a result, there will be no cumulative impact related to this issue. As explained below, no other potential biological impacts will be cumulatively considerable.

The geographic scope of analysis for cumulative impacts on biological resources includes the construction disturbance areas and biologically-linked areas within 2 miles of Estrella Substation, and 1 mile of the 70 kV power line.

This analysis of cumulative impacts to biological resources focuses primarily on facility siting and construction-related effects, since this is the period during which most impacts will occur. Upon completion of construction activities, the proposed facilities will be operated remotely, with facility operators visiting the substations monthly to monitor operations and conduct routine maintenance. The power line route will be inspected annually using a helicopter. Vegetation that grows within 10 feet of the new power poles may be trimmed and/or cleared periodically. The maintenance of vegetation around the new power poles will not contribute significantly to any potential cumulative impacts on biological resources.

Special-Status Plant Species

Botanical surveys were conducted at the substation site and along the construction corridors for the new 70 kV power line and reconductoring segments over a range of bloom periods to capture the flowering period of all special-status plants with a likelihood to occur in the project area. No special-status plants were found in the project area during the surveys. The APMs require pre-construction surveys and worker training to ensure appropriate avoidance and minimization measures are implemented in the event special-status plants are present at the time of construction. Other cumulative projects in the vicinity could also potentially have adverse effects on special-status plants. However, since special-status plants were not found in the project area during the extensive series of botanical surveys, it is possible that special-status plants will not be encountered during project construction activities, but if encountered, the APMs will ensure the project's contribution to cumulative impacts on special-status plant species is cumulatively considerable.

Special-Status Wildlife Species

Review of species databases that are maintained by regulatory agencies and the results of reconnaissance-level and focused surveys that were conducted for the project identified four special-status wildlife species that are likely to occur (vernal pool fairy shrimp *[Branchinecta lynchi]*, western spadefoot toad *[Spea hammondii]*, coast horned lizard [*Phrynosoma blainvillii*], and American badger [*Taxidea taxus*]) and eight special-status wildlife species that have potential to occur (San Joaquin kit fox *[Vulpes macrotis mutica]*, Salinas pocket mouse [*Perognathus inornatus psammophilus*], Monterey dusky-footed woodrat [*Neotoma macrotis Luciana*], pallid bat *[Antrozous pallidus]*, San Joaquin whipsnake [*Coluber flagellum ruddocki*

[=Masticophis flagellum ruddocki]], silvery legless lizard [*Anniella pulchra pulchra*], and California red-legged frog *[Rana draytonii]*) in the biological resources study area. Several APMs, including pre-construction surveys and avoidance and minimization measures, are prescribed to address the project's potential to adversely affect special-status wildlife species.

The project has been designed to avoid all direct permanent impacts to all seasonal wetlands, ephemeral drainages, and riparian habitats that bisect the project area. As a result, the project will avoid all permanent direct impacts to: critical habitat for vernal fairy shrimp; riparian habitat for Monterey dusky-footed woodrat; and suitable breeding and non-breeding *aquatic* habitat for western spadefoot toad, California red-legged frog, coast horned lizard, and silvery legless lizard. However, *indirect* effects on this critical habitat, riparian habitat, and aquatic habitat could result from construction-related pollutants in runoff and increased soil erosion and subsequent sedimentation of receiving waterbodies. Permanent direct impacts on potential *upland* habitat for toad, frog, and lizards will occur as a result of the power poles and concrete pier foundations for the new 70 kV power line and reconductoring segments. Upland habitat refugia is not present at the substation site. In addition, individual woodrats, toads, frogs, and lizards could be trampled by construction vehicles or equipment, be trapped in open excavations, or be significantly disrupted by the mere presence of construction vehicles, equipment, and workers. Several of the cumulative projects in Table 3.18-2 also have the potential to contribute to direct and indirect cumulative impacts on these species. The project and all cumulative projects with a construction disturbance area greater than 1 acre will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and comply with the requirements of the construction general permit. This will address cumulative impacts related to polluted stormwater and sedimentation of receiving waterbodies. It is assumed the cumulative projects will be required to obtain regulatory permits and implement mitigation measures that are similar to the pertinent avoidance and minimization APMs identified in Section 3.4, Biological Resources thereby reducing the overall potential for cumulative impacts to these species. Because the project has a relatively short construction period (approximately 7 months), it will avoid direct impacts to these habitats, and will result in minimal direct impacts to potential upland habitat, the project's contribution to cumulative impacts on vernal fairy shrimp, Monterey dusky-footed woodrat, Western spadefoot toad, California red-legged frog, coast horned lizard, and silvery legless lizard is not cumulatively considerable.

Project implementation will result in permanent impacts to approximately 15 acres of marginal foraging habitat for San Joaquin kit fox at the substation site. Several of the cumulative projects could adversely affect kit fox habitat, but the cumulative projects will need to comply with the County's kit fox mitigation requirements. Implementation of the pertinent APMs identified in Section 3.4, Biological Resources will minimize the potential for a significant cumulative impact on kit fox. Given that the great majority of kit fox foraging habitat that will be permanently impacted by the project is of marginal quality and is not likely used by the kit fox for extended periods of time, and the fact that high quality kit fox habitat is present in the natural, open space areas immediately southwest of the substation site, the project's contribution to cumulative kit fox impacts is not cumulatively considerable.

Project implementation will result in the removal of several oak trees and the permanent loss of approximately 0.4 acres of nonnative grassland and blue oak woodland habitat that could support San Joaquin whipsnake, American badger, and Salinas pocket mouse. Although some of the cumulative projects could also result in an adverse effect on these species, due to the small acreage of habitat that will be lost as a result of implementation of the project and the abundance of nonnative grassland and blue oak woodland throughout the county, the project's contribution to impacts on San Joaquin whipsnake, American badger, and Salinas pocket mouse is not cumulatively considerable.

Pallid bat has the potential to occur in buildings or scattered and sparse oak trees located within 250 feet of the substation site. This habitat is marginal, located outside of the substation site, and will not be removed as part of the project. Roosting habitat for pallid bat is also provided by the approximately 1,600 oak trees located throughout the biological resources study area, of which several trees will be removed to accommodate the new 70 kV power line segment. Although many of the cumulative projects, particularly those that involve tree removal within or adjacent to mature stands of oak woodland, could also adversely affect pallid bat habitat, the removal of several of these trees will not be cumulatively considerable.

Birds

The project-level analysis identified two special-status bird species that are present in the project area (bald eagle [*Haliaeetus leucocephalus*] and loggerhead shrike [*Lanius ludovicianus*], both of which were observed during biological surveys for the project), several species that are likely to occur (golden eagle [*Aquila chrysaetos*], northern harrier [*Circus cyaneus*], and white-tailed kite [*Elanus leucurus*], and two species that could potentially occur (burrowing owl [*Athene cunicularia*] and purple martin [*Progne subis*]). The cumulative projects listed in Table 3.8-2 could result in adverse effects on the same species. The project's contribution to permanent cumulative impacts on special-status bird species will be limited to the permanent removal of 15 acres of marginal foraging habitat at the substation site and permanent access road to the substation site, the permanent removal of several oak trees along the new 70 kV power line segment that currently provide suitable foraging and nesting habitat, and temporary disturbance from construction activities. While the cumulative projects could adversely affect some of the same species, given the short-term nature of project construction, the limited number of nesting trees that will be removed by the project, and the abundance if foraging habitat in the project vicinity, the project's contribution to this cumulative impact is not cumulatively considerable.

Riparian Habitat and Jurisdictional Wetlands

Riparian habitat and jurisdictional wetland features are not present at the substation site. Eleven water features that are potentially jurisdictional and support riparian habitat bisect the alignments for the new 70 kV power line and reconductoring segments. The project has been designed to avoid all direct impacts to these features and habitats. Implementation of the project and the cumulative projects could result in indirect cumulative impacts from construction-related ground disturbance and associated increases in soil erosion and sedimentation of receiving waterbodies. However, because the project and all cumulative projects with a construction disturbance area greater than 1 acre will be required to prepare a SWPPP and comply with the requirements of the construction general permit, significant cumulative impacts related to polluted stormwater and sedimentation of receiving waterbodies are unlikely and the project's contribution is not cumulatively considerable.

Other Sensitive Natural Communities

Apart from riparian habitat, the only other sensitive natural community that could be adversely affected by the project is blue oak woodlands. Approximately 0.1 acre of permanent impacts to blue oak woodlands will result as a result of pole and tower installation, the removal of several oak trees, and other vegetation removal and clearing activities. Another 6.5 acres will be temporarily impacted as a result of vegetation trimming before and during construction, construction staging, and the movement of construction vehicles within the site. Although the acreages of woodland that will be permanently impacted by the cumulative projects is unknown, due to the small acreage that will be permanently impacted by the project and the fact that all other impacted areas will be restored upon completion of construction activities, the project's contribution to this impact is not cumulatively considerable.

Migratory Wildlife Corridors and Wildlife Nursery Sites

No wildlife nursery sites were found in the project area during the biological surveys that were conducted for the project. Although wildlife may currently move through the substation site, due to the cultivated vineyards on the site, the site does not serve as a substantial wildlife corridor. Huerhuero Creek and several ephemeral tributaries to Huerhuero Creek and Salinas River bisect the alignments for the new 70 kV power line and reconductoring segments and provide corridors for the free movement of wildlife species. These wildlife corridors could be cumulatively impacted by construction of the project and the cumulative projects. However, the project's contribution to this cumulative impact will be limited to approximately 7 months and will only occur at active construction sites along the power line route. Once construction has been completed, the new 70 kV power line and reconductoring segments will not impede or interfere with wildlife movement. Due to the short-term, linear nature and limited geographic extent of the project's contribution to this impact, the project's contribution to impacts on wildlife corridors is not cumulatively considerable.

Consistency with Tree Protection Ordinances and Other Local Policies or Ordinances Protecting Biological Resources

Local policies and ordinances that were adopted for the purpose of protecting biological resources include the County's Oak Woodland Management Plan and the County's San Joaquin kit fox mitigation requirements. Although the project is exempt from the County's discretionary regulations related to biological resources, the project is, nevertheless consistent with the County's Oak Woodlands Management Plan and there will be no cumulative impact related to it. Because the cumulative projects that could impact kit fox are subject to the County's kit fox mitigation requirements, and because the project includes APMs to address potential impacts to kit fox, the potential for significant cumulative impacts is limited and the project's contribution is not cumulatively considerable.

Cultural Resources and Paleontological Resources

The project will not have a cumulatively considerable impact on cultural or paleontological resources. The geographic scope of analysis for cumulative impacts on cultural resources is a 2-mile radius of the substation and a 1-mile radius of the power line route. Direct impacts to cultural resources could only occur during the approximately 7-month construction period;

project operation and maintenance activities will not result in impacts to cultural resources. A cumulative impact to cultural resources could occur if the incremental effects of the project, when combined with those of one or more of the cumulative projects, were to indirectly or directly impact known and unknown resources within the project area.

With implementation of the APMs prescribed in Section 3.5, Cultural and Paleontological Resources, the project will have a less-than-significant impact on the four cultural resources identified as either eligible or potentially eligible for listing on the CRHR—one historic building and three archaeological sites—along the construction corridor for the new 7-mile-long 70 kV power line route. The project has been designed to avoid these sites, and the project's potential to impact these known resources will be further reduced with the implementation of APM CUL-2 (Avoidance). None of the identified cumulative projects overlap with these known archaeological resources within the project footprint, and cumulative impacts to identified archaeological resources will be less than significant. Identified cumulative projects could result in the physical destruction of CRHR eligible archaeological resources outside of the project footprint, potentially resulting in significant impacts. However, the current project will not contribute to such physical destruction/alteration of archaeological resources in the area. Given the low probability of accidental discovery of previously unidentified cultural resources during project implementation, and the even lower probability of accidental discovery of the same resource by a cumulative project, the project's contribution to cumulative impacts to previously unidentified cultural resources will be less than significant with the implementation of APM GEN-1 (WEAP Training Program), APM CUL-1 (Retain a Qualified Principal Investigator), APM CUL-3 (Inadvertent Discoveries), and APM CUL-4 (Discovery of Human Remains).

None of the identified cumulative projects overlap with known CRHR-eligible historic resources (i.e., the Johnson House) within the project footprint. One of the identified cumulative projects, the Marriott Residence Inn, is within close proximity to the Johnson House. However, as the resource is CRHR eligible for its associations with the residential and architectural development of the Paso Robles area, its direct setting is less critical in its ability to convey its significance. As such, the present project will not impact the setting or contribute to cumulative impacts to the setting, such that the resource is no longer able to convey the reasons for its significance.

The project is underlain by Quaternary older alluvium and the Paso Robles formation, both of which have a high sensitivity for yielding paleontological resources. Earthwork and excavations associated with overlapping cumulative projects could result in impacts on the same paleontological resources. With implementation of APM PALEO-1 (Retain a Qualified Principal Investigator) to APM PALEO-4 (Fossil Recovery), the project's incremental contribution to cumulative impacts to paleontological resources will be less than significant.

Impacts to tribal cultural resources are not addressed in this PEA because, under Assembly Bill 52, CPUC must identify these resources during consultation. Project proponents are not aware of any tribal cultural resources, but will implement APM CUL-5 (Tribal Construction Monitoring) to involve Native American cultural resources monitors during construction, if warranted, to ensure any adverse change in the significance of a tribal cultural resource will not be cumulatively considerable.

Geology and Soils

As analyzed in Section 3.6, Geology and Soils, the project will have no impacts related to fault rupture or the use of septic tanks or alternative wastewater disposal systems. As a result, there will be no cumulative impact related to these issues. As explained below, no other potential impacts related to geology and soils will be cumulatively considerable.

Although San Luis Obispo County is located within a seismically-active region with a wide range of geologic and soil conditions, these conditions can vary greatly within a short distance. Accordingly, most geologic and soils impacts depend on the local geology and soils conditions and are site-specific. The geographic scope for cumulative impacts related to geology and soils consists of the project's construction disturbance area. All potential cumulative impacts to geology and soils will result from facility siting or construction activities. Thus, the timeframe during which the project could contribute to geology and soils impacts is the approximately 7-month construction duration.

The project facilities will be designed and constructed in accordance with the project-specific geotechnical investigation and all applicable legal requirements and standards that address seismic and geologic hazards. Implementation of the project, as well as implementation of the cumulative projects, will not create nor exacerbate hazards related to seismic groundshaking, liquefaction, subsidence, expansive soils, or lateral spreading. Therefore, there will be no change in the exposure of people or structures to risk of loss, injury, or death related to seismic groundshaking, liquefaction, subsidence, expansive soils, or lateral spreading when compared to existing conditions. Therefore, the project's impacts related to these hazards will not be cumulatively considerable.

A significant cumulative impact related to landslides and loss of topsoil would occur if grading and earthwork associated with the project, in combination with grading and earthwork for cumulative projects, were to destabilize an existing slope and cause landslides, or result in the loss of topsoil over a large area, respectively. The reconductoring segment will reconductor an existing line and will not require substantial grading or earthwork. As a result, this analysis only considers contributions from the new 70 kV power line segment and Estrella Substation. Cumulative projects that could contribute to this impact are limited to those whose construction disturbance area overlaps with, or adjoins, the construction disturbance area for the new 70 kV power line segment or substation. Four cumulative projects meet this criteria, with the potential overlap occurring along the western half of the construction disturbance area for the new 70 kV power line segment: River Oaks Master Plan Development, San Antonio Winery Production Facility, Justin Winery Wine Storage Building, and Paso Robles Motorcoach Project. As indicated in Figure 3.6-3, Landslide Potential Map, the overlapping sections of the power line have high landslide potential (pertains to areas of overlap for first three cumulative projects listed above) and moderate landslide potential (pertains to area of overlap for fourth cumulative project). In these sections, the only ground support structures that will be used for the new 70 kV power line segment are power poles, which will require only minimal grading and earthwork. None of the cumulative projects overlap with the construction disturbance area for the substation. As a result, the project's contribution to cumulative topsoil and landslide impacts is not cumulatively considerable.

Greenhouse Gas Emissions

GHG emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; it is the combination of GHG emissions from past, present, and future projects and activities that have contributed and will continue to contribute to global climate change and its associated environmental impacts. Thus, the analysis of cumulative GHG impacts is the same as the project-level evaluation of GHG impacts in Section 3.7, Greenhouse Gas Emissions. As indicated in that section, with implementation of APM GHG-1 (Minimize Operational SF_6 Emissions), the project incremental contribution to cumulative GHG emissions is not cumulatively considerable (less than significant). Refer to Section 3.7 for additional discussion.

Hazards and Hazardous Materials

The project-level analysis in Section 3.8, Hazards and Hazardous Materials, determined that implementation of the project will have no impact related to hazardous air emissions or the handling of hazardous materials within 0.25 mile of a school, or safety hazards associated with private air strips. Therefore, the project will not contribute to cumulative impacts in these areas. Moreover, as explained below, no other potential impacts related to hazards or hazardous materials will be cumulatively considerable.

The geographic scope of analysis for cumulative hazards and hazardous materials impacts encompasses the project area and nearby areas that: (a) could affect soil and groundwater conditions within the project area, or (b) have overlapping construction schedules and overlapping or adjacent construction disturbance areas and are within or adjacent to a Moderate, High, or Very High Hazards Severity Zone. The timeframe during which the project could contribute to cumulative hazards impacts is the approximately 7-month construction phase and the operational phase. Cumulative impacts related to hazards and hazardous materials would occur if the incremental effects of the project, when combined with the effects of cumulative projects, were to: (1) substantially increase the risk of people or the environment being exposed to hazards or hazardous materials, or (2) substantially increase the risk of wildfire.

Project construction could result in the inadvertent release of hazardous chemicals to the environment. In addition, the substation site is located in an agricultural area where the historical use of chemical fertilizers and pesticides may have contaminated site soils. Earthwork and grading activities at the substation site could encounter contaminated soils. The Phase I Environmental Site Assessment (Phase I ESA) and other available information indicate that Estrella Substation is not located on any sites listed pursuant to Government Code Section 65962.5. Land owner interviews conducted as part of the Phase I ESA, determined there was no known historical potential contamination, groundwater contamination, nor any history of leaks, spills, or cleanups. Further, the Phase I ESA included record reviews from the California State Water Resources Control Board's GeoTracker website, which contains environmental data for regulated facilities in California including cleanup sites and hazardous waste facilities; the California Department of Toxic Substances Control's EnviroStor website, which includes data for leaking underground storage tank and other cleanup sites, land disposal sites, and hazardous waste permitted facilities; and the DOC's Division of Oil, Gas & Geothermal Resources Interactive Well Finder, which identifies wells and facilities related to oil and gas. Neither the substation property or nearby properties (within 0.25 mile of the project site) were identified in any of the database searches. As a result, no impacts related to hazardous materials sites will occur. Additionally, adherence to the construction general permit requirements and regulatory requirements regarding the use, handling, and disposal of hazardous materials will prevent a potentially-significant impact. Implementation of APM HAZ-1 (Hazardous Substance Control and Emergency Response) will further minimize potential less-than-significant impacts. Construction of the cumulative projects will also involve use of hazardous construction chemicals and several cumulative projects are likely to require excavation in areas that were previously used for agricultural purposes. Cumulative impacts related to the accidental release of hazardous chemicals, such as fuels, lubricants, paints, and solvents, into the environment or to exposure of workers and the public to hazardous materials in soil during construction of the project in combination with these cumulative projects could occur. However, cumulative projects that result in a construction disturbance of 1 or more acres will be subject to the construction general permit requirements, and all of the cumulative projects are subject to regulatory requirements regarding the proper use, handling, and disposal of hazardous materials. Cumulative impacts related to the routine transport, use, and disposal of hazardous materials and inadvertent release of hazardous materials during construction will be less than significant.

Cumulative impacts related to the risk of fire could occur if projects with overlapping construction schedules and footprints will be constructed in close proximity to moderate or high fire hazard areas. As shown in Figure 3.8-1, Fire Hazard Severity Map, none of the project components are located within a high fire hazard severity zone but the substation and the southernmost segment of the new 70 kV power line segment are located immediately adjacent to a high fire hazard severity zone. Although project construction activities could increase fire hazards in the immediately vicinity, the only cumulative project that overlaps geographically and that could have concurrent construction activities is the Justin Winery Wine Storage Building, which is located 1.5 miles from a fire hazard severity zone. Therefore, no cumulative impact related to increased risk of wildfires will occur.

Hydrology and Water Quality

As discussed in Section 3.9, Hydrology and Water Quality, the project will have no impact related to the placement of housing or structures in a 100-year flood hazard zone, or inundation due to a seiche, tsunami, mudflow, or dam or levee failure. Therefore, there will be no cumulative impacts related to these issues. As explained below, no other potential impacts related to hydrology or water quality will be cumulatively considerable.

The geographic scope for cumulative hydrology and water quality impacts consists of the project area and surrounding Huerhuero Creek and Paso Robles-Salinas River watershed lands. The project could contribute to cumulative hydrology and water quality effects during the approximately 7-month construction phase and the operations phase.

Project construction activities could degrade water quality as a result of vegetation removal, increased soil erosion and subsequent sedimentation of receiving water bodies, and accidental releases of hazardous construction chemicals. All of the cumulative projects in Table 3.18-2 involve vegetation removal, grading and earthmoving activities, and the use of heavy equipment and could result in construction-related effects on water quality that are similar to those of the project. However, like the project, cumulative projects that result in 1 or more acre of ground disturbance will be required to prepare and implement a project-specific SWPPP and comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements. The construction general permit requirements are based, in part, on the consideration of cumulative effects to receiving waters. Compliance with the construction general permit requirements is mandatory and will prevent cumulative construction-related impacts to water quality. The cumulative effect is less than significant; therefore, the project's contribution is not cumulatively considerable.

Grading and the creation or removal of impervious surfaces at a project site can change drainage patterns and increase erosion and/or downstream flooding. Approximately 2 acres of new impervious surfaces will be created at the substation site. The site will be designed in accordance with the construction general permit post-construction requirements, which require that peak runoff from the site be managed such that post-construction runoff matches pre-construction conditions for the 85th percentile storm event. The requirements not only reduce the risk of impact to the receiving waterbody's channel morphology, but also provide some protection of water quality. Drainage at the substation site will be also be equipped with secondary containment for transformer mineral oil and features that will prevent sediment from migrating off-site. New power line poles and structures along the new 70 kV power line and reconductoring segments will not change drainage patterns.

Most of the cumulative projects in Table 3.18-2 will create new impervious surfaces and/or require grading and also have the potential to alter drainage patterns and result in increased erosion and/or downstream flooding. Like the project, the cumulative projects located in unincorporated San Luis Obispo County are subject to the construction general permit post-construction requirements. The cumulative projects located in Paso Robles are subject to the post-construction requirements of the Paso Robles Stormwater Program, which are similar to those of the construction general permit. Adherence to the post-construction requirements will ensure alteration of drainage patterns at the various sites do not result in a cumulatively significant effect. As a result, the project's contribution to this cumulative impact will be less than significant and is not cumulatively considerable.

Project maintenance and operations activities have the potential to degrade surface water quality if hazardous chemicals are inadvertently released into the environment. These hazardous chemicals may include, but are not limited to solvents, cleaning products, mineral oil used to cool transformers, and petroleum products used in maintenance equipment and vehicles. The prescribed APMs, which include avoidance of aquatic features, reduce the project's potential to result in water quality impacts during maintenance and operations. The cumulative projects also have the potential to result in inadvertent releases of hazardous chemicals and degradation of water quality. For all projects, it is assumed hazardous materials will be handled, stored, and disposed of in accordance with all federal, state, and local regulatory requirements. Cumulative projects that routinely handle or use hazardous materials at the applicable federal and/or state thresholds will be required to prepare a Hazardous Material Business Plan. Mandatory compliance with regulatory requirements and the development of HMBPs, when applicable, will prevent significant cumulative impacts to water quality related to operations and maintenance activities. Therefore, project's contribution to this cumulative impact is not cumulatively considerable.

The 15-acre substation site is currently used to cultivate vineyards that are irrigated with groundwater from a local well in the Paso Robles Groundwater Basin. It is estimated that the project will reduce groundwater consumption by 14.4 to 24 acre-feet per year (afy). Over 30 years, this will result in a reduction in groundwater pumping of 576 to 960 afy. Considering the overall reduction in groundwater pumping that will occur with project implementation, the 2 acres of new impervious surfaces at the substation site and the small impervious surfaces that will be created by the power line structures will have a negligible effect related to interference with groundwater recharge. Overall, the project is expected to increase groundwater storage. Therefore, any effect related to groundwater recharge is not cumulatively considerable.

Land Use and Planning

The project-level analysis found that the project will have no impact related to whether the project will physically divide an established community, or conflict with applicable local land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, there will be no cumulative impacts related to land use.

Mineral Resources

Although some project components are located within a mineral resource zone (MRZ) 3 (indicating areas where there are known or inferred aggregate resources of undetermined significance), there is no active mining within or immediately adjacent to the facility footprints or construction disturbance area. As a result, the project-level analysis found that the project will have no impact on the availability of locally important mineral resource recovery sites or mineral resources that are of value to the region and residents of the state. Therefore, no cumulative impact to mineral resources will result.

Noise

The project-level analysis in Section 3.12, Noise, found that the project will have no impact related to private airstrips and exposure of workers or residences to excessive noise levels. Thus, no impact pertaining to this issue will result. As explained below, no other potential noise impacts will be cumulatively considerable.

The geographic scope for cumulative noise and vibration impacts encompasses the sensitive receptors within the 2,000-foot buffer that comprises the noise analysis area (see Figures 3.12-2a and 3.12-2b, Project Area Sensitive Noise Receptors). The timeframe during which the project could contribute to cumulative noise impacts is the approximately 7-month construction period since any operations and maintenance impacts will be minimal. Cumulative projects that could contribute to cumulative noise and vibration impacts are those that have potentially overlapping construction schedules and are located within the noise analysis area. These are: the Salinas River Corridor Vision, Justin Winery Wine Storage Building, and Vina Robles Vineyards.

A significant construction-related cumulative impact related to exceedance of established local noise level limits and temporary increases in ambient noise levels could occur if the incremental noise level increase generated from project construction were to combine with construction noise associated with the four cumulative projects, and result in substantial noise increases at sensitive receptors in the noise analysis area. Most construction work will occur during daytime hours, consistent with local City and County noise ordinances. Nighttime construction, if necessary, will occur infrequently.

The closest sensitive receptor to Estrella Substation is a residence 265 feet southwest of the substation boundary, and approximately 305 feet from the sound source. During operations, the loudest sources of noise from Estrella Substation are the transformer and the heating, ventilation, and air conditioning (HVAC) units at each control building, which, as demonstrated in Section 3.12, Noise will generate a combined-source sound level L_{eq} (equivalent sound pressure level) of approximately 46.6, daytime sound level of 53.2 A-weighted decibels (dBA), and nighttime noise level of 49.1 dBA at the property line. Operation of the 200 MVA transformer and the two HVAC units at the control buildings will cause an increase of 0.1 dBA in the daytime and 0.2 dBA in the nighttime ambient noise level based on combined sound levels calculated at the nearest residence. As discussed in Section 3.12.1.1, Fundamentals of Noise, a 3-dB change in sound level is considered to be a barely noticeable difference. In terms of corona noise, power lines below 70 kV are generally free of conductor corona-type radio noise.

The 70 kV substation will provide a location for a future 70/21 kV transformer and other 21 kV distribution facilities expected to be needed in the next 5 to 15 years. Construction will not occur at the same time as the project. Operation of Estrella Substation with distribution will include an additional noise source, the 70/21 kV transformer, located approximately 560 feet from the nearest residence. However, even with the additional 70/21 kV transformer, there will be essentially no audible increase from the original project based on cumulative sound levels calculated at the residence. Operation of the 70/21 kV transformer, the 230/70 kV transformer, and the HVAC units at each control building results in a L_{eq} of approximately 32 dBA at the nearest residence. This is a predicted increase of 0.1 dBA during the day and 0.2 dBA during the night, which are considered to be a barely noticeable difference. As a result, the project's incremental contribution to cumulative noise impacts from operations and maintenance will be less than significant.

Population and Housing

As described in Section 3.13, Population and Housing, the project will have no impact related to the inducement of substantial population growth or the displacement of housing or people. Therefore, no cumulative impacts related to these issues will result.

Public Services

The project will have no impact on schools, parks, or other public governmental services and facilities, and no cumulative impact related to these services or facilities will result. Given that the project will result in a negligible increase in demand for emergency services (fire and police) during the project operations and maintenance phase, the analysis below focuses on cumulative impacts on fire and police services during project construction. As explained below, no potential impacts related to public services will be cumulatively considerable.

The geographic scope for cumulative impacts consists of the service areas of the local fire and police departments. The timeframe during which the project could contribute to cumulative impacts on emergency services is limited to the approximately 7-month construction phase. A cumulative impact to fire and police services would result if the incremental increase in demand during project construction, in combination with the increase in demand associated with the construction of cumulative projects with overlapping construction schedules, were to potentially impede the ability to maintain acceptable service ratios in the service area.

As discussed in Section 3.14, Public Services, the project may result in a marginal increase in demand for local fire and police protection and emergency services during construction in the event of an accident, vandalism, on-site fire, or wildland fire in the project vicinity and six cumulative projects with overlapping construction durations are also expected to temporarily increase demand for similar emergency services. However, these are relatively rare occurrences and such an event is unlikely. There are adequate police, fire, and emergency services in proximity to the project area to accommodate any minimal increase in demand. The project's minimal incremental contribution to cumulative police, fire, and public services will be less than significant.

Recreation

As stated in the project-level analysis, the project would not increase the use of existing parks or other recreational facilities such that substantial physical deterioration would occur. The project will not construct or expand recreational facilities. Therefore, there will be no cumulative impact related to recreation.

Transportation and Traffic

As indicated in the project-level analysis in Section 3.16, Transportation and Traffic, the project will not conflict with the local congestion management program or policies, plans, and programs regarding public transit, pedestrian, and bicycle facilities. As a result, no impact related to these issues will result.

Project operations and maintenance will typically require one site visit to each substation (for a total of 2 round trips) per month. This increase in vehicle trips is negligible and would not have a noticeable effect on any publicly accessible roadways. As a result, the analysis of cumulative vehicular transportation and traffic impacts focuses entirely on construction impacts. Although project construction and operations will involve the use of a helicopter to install and inspect power lines, there will be no cumulative impact to air traffic patterns because none of the cumulative projects involve the use of helicopters or air planes, and this issue is not discussed further. Construction of the Estrella Substation Distribution Project will not occur at the same time as construction of the project, and construction of the future transformer and distribution facilities will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. During a worst-case week, construction of the Estrella Substation Distribution Project will contribute a maximum of 31 daily round trips to the average daily traffic of area roadways and will not increase the capacity utilization for area roadways beyond their existing utilization rates at the time of construction. Effects on traffic resulting from operations and maintenance of the substation and the substation with future distribution will be negligible and therefore, no long-term operational impacts on traffic load or capacity will occur as a result. Operations and maintenance of the power line and the future distribution feeders will be added to the existing operations and maintenance activities that occur at existing facilities in the area; therefore, operation and maintenance traffic will remain the same. No other potential impacts related to transportation and traffic will be cumulatively considerable.

The geographic scope for cumulative transportation and traffic impacts encompasses the local and regional roadways and highways that will be used for project-related construction activities, including access routes for construction workers and haul routes for dump trucks and delivery trucks. The project could contribute to cumulative traffic impacts during the approximately 7-month construction duration. A construction-related cumulative impact to vehicular traffic would result if the project's incremental increase in vehicle trips, in combination with the vehicle trips generated by concurrent cumulative construction projects, were to result in substantial short-term increases in vehicle traffic such that LOS standards are exceeded, safety hazards are substantially increased, or emergency access is substantially impeded. Only the six cumulative projects with potentially overlapping construction schedules could contribute to these impacts.

The project will result in short-term temporary increases in traffic volumes in the vicinity of Estrella Substation and the power line route during the construction period. Traffic impacts will be greatest in the immediate vicinity of active construction work areas, which will progress along the power line route as poles and towers are installed and, subsequently, as the conductors are installed along the project route. The project-level analysis found that, with implementation of the prescribed APMs, the project will not have a substantial effect on transportation and circulation. The project does not include changes to public roadways or any design features that could increase safety hazards. Although the temporary increase in construction vehicles on local roadways and temporary lane and road closures could increase safety hazards for motorists, bicyclists, and pedestrians on public roadways, as well as impede access to adjacent land uses and streets for both general traffic and emergency vehicles, traffic control measures will be implemented to address these temporary impacts. It is anticipated that the cumulative projects will also be required to implement traffic control measures to minimize the temporary effects of their construction vehicles and potential land and road closures on local circulation. Given the temporary nature of these traffic impacts and the low probability of all six cumulative projects being constructed concurrently with the proposed project, cumulative impacts related to construction traffic will be less than significant, and the project's contribution not cumulatively considerable.

Utilities and Service Systems

As indicated in Section 3.17, Utilities and Service Systems, the project would have no impact related to: exceedance of wastewater treatment requirements or capacity, the need for new water or wastewater treatment facilities, landfill capacity, or compliance with statutes and regulations related to solid waste. Apart from what has already been disclosed in the project-level analysis, no additional impacts associated with the construction or expansion of new stormwater drainage facilities will result. Therefore, there will be no cumulative impacts related to wastewater treatment requirements, wastewater treatment capacity, landfill capacity, solid waste diversion requirements, or the need for new or expanded water, wastewater, or stormwater facilities.

The analysis of cumulative utilities systems impacts thus focuses on the availability of water supplies to serve the project, and concludes that impacts will not be cumulatively considerable. The geographic scope for this analysis encompasses the Paso Robles Groundwater Basin. The project could have an effect on water supplies in the groundwater basin during the approximately 7-month construction phase.

The project will require a total estimated 32 afy of water for dust suppression, foundation work, construction personnel drinking water, and other construction uses during the approximately 7 months of construction. The project proponents will obtain water for construction from one or more of the following sources: groundwater extracted from the existing groundwater well adjacent to the substation site, recycled water from the City of Paso Robles Wastewater Treatment Plant, or potable water from the City's existing hydrant system, including two hydrants at Barney Schwartz Park. Any one of these sources has enough existing water supply to individually provide project water during construction, operation, and maintenance, and any combination of sources may be used to further minimize impacts on any one source. Upon completion of construction activities, the project will result in a permanent decrease in pumping from the groundwater basin due to the permanent removal of existing vineyards at the substation site from production.

For the lifespan of the project, annual pumping from the Paso Robles Groundwater Basin will be reduced by between 14.4 afy and 24 afy. During a 30-year operation and maintenance period, the project will result in a net increase in water availability ranging between 576 and 960 afy as compared to existing conditions and, overall, the project will have a beneficial effect on the Paso Robles Groundwater Basin water supplies. For these reasons, the project will not contribute to cumulative impacts on water supply.

3.18.4 References

City of El Paso de Robles. 2003. *City of El Paso de Robles General Plan*. As amended through November 18, 2014. Online: http://www.prcity.com/government/departments/commdev/planning/general-plan-final.asp. Accessed August 2016.

———. 2015a. *City of Paso Robles Commercial/Industrial Activity Report, August 2015*. August 2015. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/CommRpt.pdf. Accessed August 2016.

———. 2015b. *City of Paso Robles Residential Activity Report, August 2015*. August 2015. Online: http://www.prcity.com/government/departments/commdev/planning/pdf/resrpt.pdf. Accessed August 2016.

———. 2016a. City of El Paso de Robles, homepage. Online: http://www.prcity.com/government/departments/commdev/index.asp. Accessed August 22, 2016.

———. 2016b. Personal communication between Susan DeCarli, AICP (City Planner), Darren Nash (Associate Planner), and Emily Creel of SWCA Environmental Consultants. July 2016.

County of San Luis Obispo. 1980. *Framework for Planning, Inland – The Land Use and Circulation Elements of the County of San Luis Obispo General Plan*. September 1980. As amended through April 2015.

———. 2016a. Interactive GIS Mapping Program. Online: http://www.sloplanning.org/PermitViewMap/MapSearch. Accessed July 2016.

———. 2016b. Personal communication between Kate Shea (Environmental Resource Specialist) and Emily Creel of SWCA Environmental Consultants. July and August 2016.

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4.0 ALTERNATIVES

4.1 REASON FOR ALTERNATIVES ANALYSIS

The California Environmental Quality Act (CEQA) does not require a review of alternatives where, as here, the proposed project would result in no significant environmental impacts after mitigation (CEQA Guidelines Section 15126.6(a) and (f)(2)(A); assigned Commissioner's Ruling dated October 16, 2001, A.01-07-004). However, General Order 131-D (G.O. 131-D) requires that an application for a Permit To Construct (PTC) include the "reasons 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" (G.O. 131-D, Section IX.B.1.c). The discussion that follows addresses the G.O. 131-D requirement.

4.2 ALTERNATIVE SELECTION PROCESS

The California Independent System Operator Corporation (CAISO) conducts a Transmission Planning Process each year, which builds upon the previous year's plan and studies the reliability of the electric system over a 10-year window. CAISO approved the development of a new 230/70 kilovolt (kV) substation—Estrella Substation—and a new 70 kV power line to interconnect to the substation to improve reliability in San Luis Obispo County in its *2013–2014 Transmission Plan, Estrella Substation Project Description and Functional Specifications for Competitive Solicitation* (CAISO 2014a) (*Functional Specifications)*. Through a competitive solicitation process established by Federal Energy Regulatory Commission Order 1000 and CAISO Tariff Section 24.5, CAISO awarded the transmission-level substation project to NEET West in its *Estrella Substation Project, Project Sponsor Selection Report* (CAISO 2015).

As the Project Sponsor, NEET West is responsible for acquiring the substation land and necessary environmental permits to prepare the substation site and construct the 230 kV substation, whereas PG&E, as the incumbent Participating Transmission Owner, is responsible for constructing the 70 kV substation as well as improvements and modifications to existing facilities not eligible for competitive solicitation, including the new 70 kV power line, 230 kV interconnection to Estrella Substation, and reconductoring of the existing 70 kV power line.

The CAISO Transmission Planning Process concluded that there was a need to mitigate thermal overloads and voltage concerns in the Los Padres 70 kV system, specifically (1) to protect Paso Robles Substation from two Category B[1] contingencies (a loss of the Templeton-Paso Robles 70 kV Power Line or the Templeton 230/70 kV transformer) that would result in the under voltage load shedding scheme dropping almost the entire city of Paso Robles, and (2) to reinforce the 70 kV system to help withstand a Category C3[2] contingency (the loss of the two 230 kV lines into Templeton Substation) that could eliminate distribution service to all customers in the Paso Robles Distribution Planning Area (DPA). CAISO's determination of project need and the

[1] A Category B contingency would be the loss of one element – a transformer or transmission line. (A transmission line in this context is any line over 50 kV.) In 2015, NERC changed its terminology and this is now referred to as a P1 single contingency.
[2] A Category C3 contingency would be the loss of two elements (transformers or transmission lines) that do not have a single point of failure. In 2015, NERC changed its terminology and this is now referred to as a P2 two or more contingency.

system solution to construct Estrella Substation is a result of months of evaluating complex transmission system power flow modeling, and NEET West and PG&E are obligated to seek permits for the CAISO-approved solution. Therefore, no additional system alternatives are presented in this analysis of alternatives.

Potential substation locations were physically and technically limited by the need to improve distribution reliability for the local DPA.[3] CAISO's *Functional Specifications* ultimately identified the location for the new substation to be within a 2.2-mile radius from the intersection of State Route (SR-) 46 and the Morro Bay-Gates/Templeton-Gates 230 kV transmission corridor. This location was a result of a recommendation to CAISO from PG&E's distribution planning engineers, based upon several considerations:

1. The anticipated growth areas are north and east of Paso Robles Substation, so the new distribution substation should be north and east of Paso Robles Substation in order to place the new distribution substation near the growth.
2. Since the new distribution substation would be fed from the 230 kV transmission source, the new substation should be located along the Morro-Bay Gates 230 kV Transmission Lines to minimize costs and potential project impacts.
3. The locality known as "Estrella" offers the operational advantage of being located where long distribution lines from four existing substations end. These substations are San Miguel, Paso Robles, Cholame, and Templeton. (See Figure 2, Current Distribution System.) Placing the substation in Estrella would make it possible to back feed and split in half long existing distribution lines from these four sources. (See Figure 4, Future Estrella Substation Distribution System.) Of the potential sites in Estrella, sites north of Estrella Road would place the new substation off in a northeast corner of the DPA, too far from the growth areas near Paso Robles Airport and the Golden Hill Industrial Park just south of the airport. For this reason, the northern-most site considered was a site where the 230 kV lines cross Estrella Road, approximately 2.2 miles northeast of SR-46 along the 230 kV right-of-way.
4. The southern-most site that distribution planning engineers felt was acceptable (not too close to Templeton or Paso Robles substations and not too far from the growth areas) was a site where Union Road comes close to the Morro Bay-Gates 230 kV lines. This southern-most site, which NEET West ultimately selected, is within 2.2 miles south of the SR-46 and 230 kV line intersection.

Thus, from a distribution perspective, the Estrella Substation site location is near the Dry Creek Road area south of Paso Robles Airport and the Golden Hill Industrial Park in northern Paso Robles where large-demand businesses are expected to be constructed. It is also at a location very well-suited for connecting to existing feeders. Adding distribution capacity at or near the Estrella Substation site will improve service reliability by allowing feeders from Templeton, Paso Robles, San

[3] The project approved by CAISO included a distribution transformer at the new Estrella Substation. Because subsequent power flow studies have indicated that the distribution need is foreseeable but not immediate, construction of the distribution facilities will take place as a separate project. Additional distribution capacity is expected to be needed within 5 to 15 years, and the 70 kV substation component provides a location for the new 70/21 kV distribution facilities, including a new distribution transformer and three 21 kV feeders, to provide approximately 28 MW of additional distribution capacity when needed.

Miguel, and Cholame Substations to be significantly reduced in their reach and therefore significantly reduced in their exposure to outages. The new, high-growth areas in Paso Robles can be served directly from the new distribution substation. As indicated in the Distribution Need Analysis, attached as Appendix G, these distribution substation facilities will be needed within the foreseeable future, and could be needed very quickly in response to one or more large-load interconnections that could materialize at any time. Failing to account for this expected need in planning the Estrella Project would be shortsighted and inevitably result in substantial additional costs to customers in the foreseeable future.

After examining the 2.2-mile location identified in CAISO's *Functional Specifications* for the project, NEET West ultimately selected three potential substation sites, including the proposed site and two alternatives. PG&E then undertook a similar evaluation to select routes for the power line to connect the proposed substation to PG&E's electric system.

4.3 SUBSTATION SITE SELECTION AND EVALUATION

CAISO's *Functional Specifications* initially identified the scope of the project as constructing a new 230 kV/70 kV substation approximately 5 miles east of the existing Paso Robles Substation (CAISO 2014a). This initial scope resulted in the identification of approximately 60 potential parcels that met specifications for proximity to the existing Paso Robles Substation. CAISO later refined the project scope to mandate that the new substation site be located within a 2.2-mile radius from the intersection of SR-46 and the existing Morro Bay-Gates and Templeton-Gates 230 kV transmission corridor, both of which are about 5 miles east of the existing Paso Robles Substation (CAISO 2014b). As a result, NEET West examined a geographic area bounded by Union Road to the south and Estrella Road to the north for sites potentially suitable for the substation.

In addition to CAISO's pre-determined geographical range, NEET West searched for parcels that were centered along the existing 230 kV transmission line corridor to minimize the length of the 230 kV transmission interconnection (loop-in) from the new substation to the existing 230 kV circuits. Additionally, potential substation sites needed to be available for outright purchase, and of the size and topography necessary to support the substation design. Lastly, due to reliability issues in crossing an existing 500 kV transmission line, NEET West focused on potential sites that were located on the east side of the 230/500 kV transmission corridor to avoid crossing under or over the existing 500 kV transmission line. Approximately 19 parcels were identified along this corridor that contained potential sites for the 15-acre substation.

NEET West then conducted outreach efforts to the landowners of these identified parcels. At the end of this process, three substation sites were moved forward for further analysis. The three substation sites are the proposed substation site, the McDonald Ranch site, and the Mill Road West site. The two alternative sites are shown on Figure 4-1, McDonald Ranch Site Alternative, and Figure 4-2, Mill West Road Site Alternative.

Once the substation site alternatives were identified, NEET West examined the feasibility of developing each site and potential environmental impacts. This effort included review of background data collected from geographic information system (GIS) data from various publicly available sources, including federal, state, and local agencies and organizations. The effort further included evaluation of existing land use and land ownership, topography and constructability, environmental resource constraints, potential permitting issues, and project costs associated with the three sites. Specific considerations in the substation site selection process included the following:

- Proximity to existing transmission lines;
- Accessibility for construction, operations, and maintenance;
- Existing and planned land uses;
- Cost and feasibility;
- Proximity to neighbors including industrial, commercial, and residential;
- Site preparation and grading requirements;
- Distance to all-weather highway, accessibility for heavy equipment under all weather conditions, and existing access roads;
- Drainage and soil conditions;
- Proximity to any recorded contaminated soils or buried hazardous materials;
- Available space for construction laydown activities;
- Land title limitations, zoning, and ordinance restrictions;
- General topographical features of site and immediately contiguous area;
- Avoidance of earthquake fault lines, floodplains, wetlands, known cultural resources, and prime or unique farmlands where possible; and,
- Potential discretionary environmental permits, authorizations, and approvals and the anticipated timing for such approvals.

4.3.1 Summary of Substation Alternatives Comparison

All three of the identified substation sites (proposed site and both alternative sites) would meet the project's objectives, and all three sites could be developed without prohibitive engineering or economic constraints. Ultimately, NEET West selected the proposed substation location based on the factors described below.

Construction of the proposed site, McDonald Ranch site, and Mill Road West site would result in similar effects to cultural resources, hazards and hazardous materials, land use, recreation, population and housing, public services, utilities and service systems, and growth-inducing and cumulative impacts. However, potential effects to aesthetics, agricultural resources, air quality, biological resources, hydrology and water quality, geology and soils, and noise were found to vary among sites. The reasons for selecting the proposed substation site and a comparison with the alternative sites, including the advantages and disadvantages of each, are presented below.

4.3.1.1 Proposed Site

The proposed site is situated on an approximately 98-acre parcel, of which the substation would occupy approximately 15 acres. This site is bounded by Union Road to the southeast, PG&E's existing easement for an existing double-circuit 230 kV transmission line and an existing 500 kV transmission line to the northwest, and vineyards under cultivation to the south and northeast. The proposed site is located within the County of San Luis Obispo North County Planning Area, El Pomar-Estrella Sub Area. The site is planted with vineyards. Adjacent land uses are also agricultural, including vineyards, as well as orchards, dry farming, and grazing. Like the other substation sites, scattered residences are present in the area.

The proposed site is adjacent to the existing Morro Bay-Gates and Templeton-Gates 230 kV transmission line easement and includes a relatively short interconnection (approximately 150 feet), requiring minimal additional ground disturbance. Dry Creek, a blue-line ephemeral tributary to Huerhuero Creek, passes 1,500 feet to the north of the substation site through the northern portion of the 98-acre parcel; however, no direct impacts to water resources would occur as a result of substation construction or operation at this location.

The site supports an existing access road that connects directly to Union Road, a two-lane arterial roadway, along with other unpaved farm roads, thereby minimizing the need for major road improvements or access road construction. While additional internal access roads are necessary for the substation, these access roads would be located within the already disturbed substation footprint.

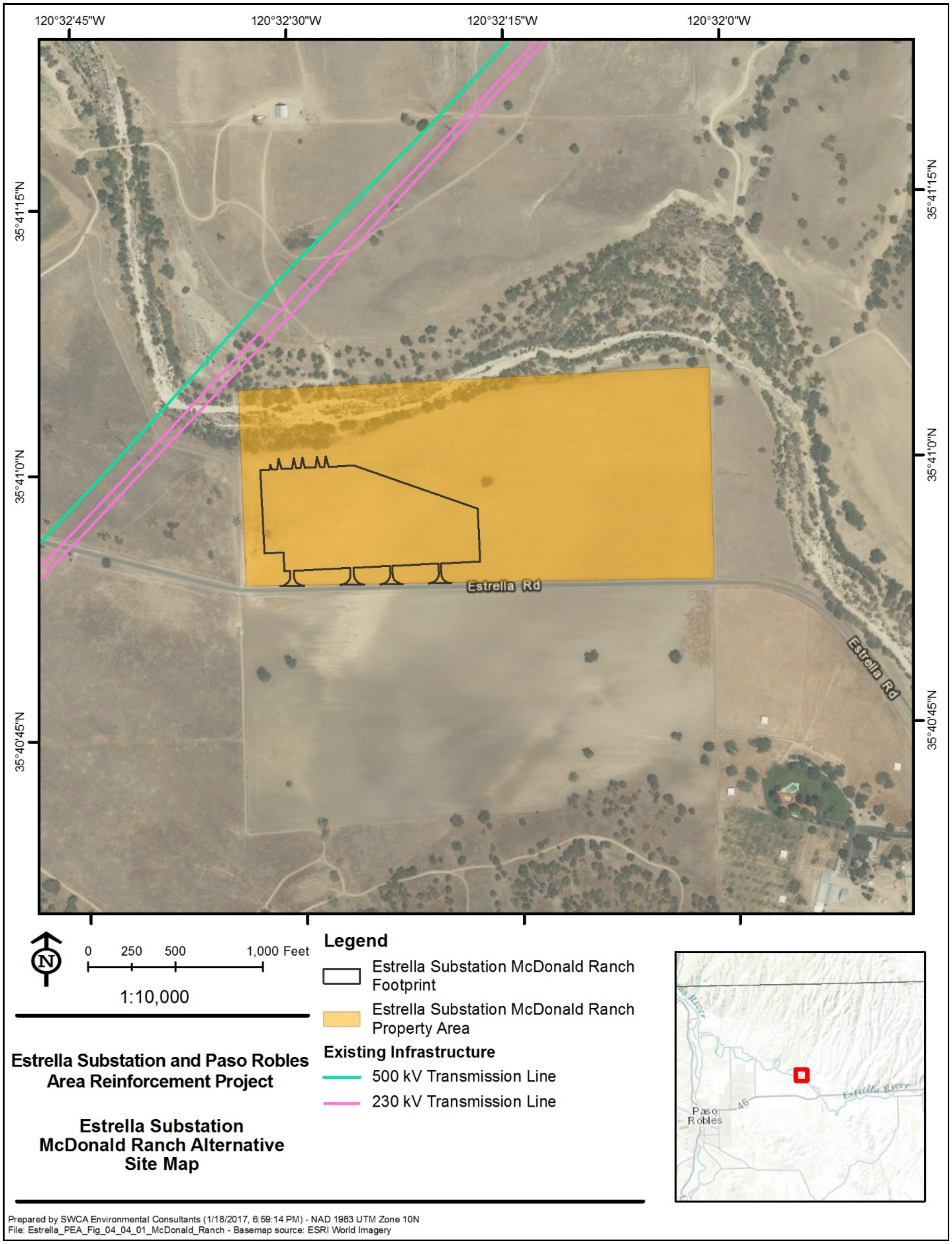
Minimal soils hauling would be required for this site, since existing soils types would not require extensive import or export of fill material for compaction purposes and much of the graded soil will be redistributed onsite for leveling purposes. The permanent removal of approximately 15 acres of vineyards would result in long-term increased water basin recharge for the substation site, since vineyards require more intensive water use.

4.3.1.2 McDonald Ranch Site

The McDonald Ranch site is situated on an approximately 72-acre parcel, of which the proposed substation would occupy approximately 15 acres. This site is bordered by the Estrella River to the north and Estrella Road to the south, and is generally surrounded by rural development. The McDonald Ranch site is located within the County of San Luis Obispo North County Planning Area, El Pomar-Estrella Sub Area. The site is currently used to grow alfalfa. Adjacent land uses are also agricultural, including fallow land, livestock grazing, alfalfa, dry farming, and vineyards. Like the other substation sites, scattered residences are present in the area.

Unlike the proposed substation site, the McDonald Ranch site would require a longer 230 kV interconnection to the substation (approximately 1,100 feet). Not only would this interconnection require more ground disturbance, it would also span Estrella River and require more overall vegetation removal (both temporary and permanent), due to the presence of riparian habitat that extends along the river. This site's close proximity to Estrella River also has potential for impacting unknown cultural and tribal resources, which have a higher likelihood of occurring in the area next to the river.

Figure 4-1. McDonald Ranch Site Alternative



Some additional indirect impacts could also result from the amount of ground disturbance and the longer construction duration (estimated to be 1 to 2 months longer than for the proposed site), resulting in a potential for increased soil erosion and sedimentation, as well as increased fugitive dust. The site's close proximity to Estrella River also results in soils that are less conducive to compaction, which could necessitate additional import/export of fill material. The corresponding increases in truck trips would result in increased construction-related air quality and greenhouse gas emissions compared to the proposed substation site.

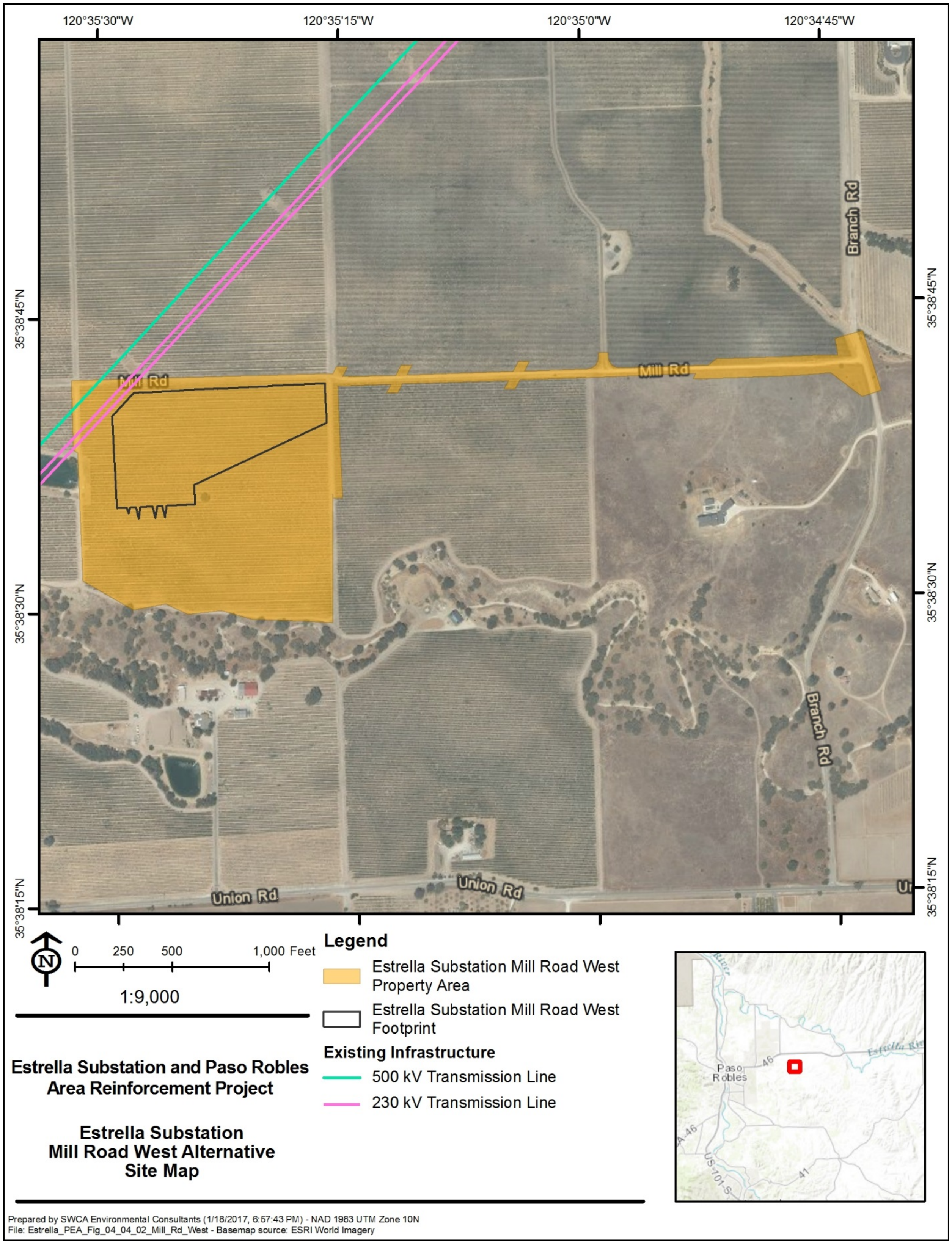
4.3.1.3 Mill Road West Site

The Mill Road West site is situated on an approximately 42-acre parcel located approximately 0.5 mile east of the proposed substation site and Union Road, and, like the other sites, the proposed substation would occupy an approximately 15-acre portion of the parcel. This site is bounded on the north by Mill Road, the west by an unpaved private road and retention pond, and the south by an unpaved private road and moderate rolling hills. The area is surrounded by vineyards on the north, east, and west sides, and by the Dry Creek drainage to the south, with vineyards extending further to the south. The Mill Road West site is located within the County of San Luis Obispo North County Planning Area, El Pomar-Estrella Sub Area. The site is currently used to grow wine grapes. Adjacent land uses are also agricultural, including vineyards, agricultural reservoirs, wine processing facilities, and wine tasting venues. Like the other substation sites, scattered residences are present in the area.

Unlike the proposed substation site, the Mill Road West site is located in the middle of vineyard rows and would require road improvements in order to access the substation site. The site's location away from the main road would make it less visually prominent to drivers traveling along Union Road. Therefore, the Mill Road West site is slightly better from an aesthetics perspective. However, in order to accommodate construction equipment and all-weather access during operations and maintenance, approximately 1 mile of an existing dirt road would require improvements such as widening, paving, turning aprons to accommodate equipment turn radii, drainage improvements such as culvert improvements, and roadside drainage ditches. Consequently, this road would require more vineyard removal and temporary and permanent ground disturbance as a result of road and drainage improvements, as well as the potential for increased indirect hydrology and water quality impacts. Use of this road could also cause conflicts with ongoing adjacent vineyard operations, particularly during harvest season.

The Mill Road West site would require a 230 kV interconnection to the substation measuring approximately 600 feet in length, resulting in more disturbance of agricultural lands compared to the proposed substation site. Additionally, an irrigation pond is located along the western and southern boundaries and is bordered by Dry Creek, an ephemeral tributary to Huerhuero Creek, west of the substation site, both of which could result in permitting requirements, due to potential wetland impacts. Dry Creek consists of an ephemeral creek bed that is mapped as a water of the U.S. in National Wetlands Inventory data.

Figure 4-2. Mill Road West Site Alternative



4.3.1.4 Conclusion on Substation Site Selection

NEET West selected the proposed substation location based on conformance with CAISO's Functional Specifications, proximity to the existing 230 kV transmission line, access from Union Road that would avoid road improvements and potential conflicts with active vineyard operations, and the presence of a willing seller. For these reasons, and because the proposed site would have fewer environmental impacts related to air quality, biological resources, hydrology and water quality, transportation and traffic, and utilities and service systems compared to the alternative substation sites, the site was selected as the proposed substation site.

The McDonald Ranch site would require a longer 230 kV interconnection to the substation (approximately 1,100 feet). Not only would this interconnection require more ground disturbance, it would also span Estrella River and require more overall vegetation removal (both temporary and permanent), due to the presence of riparian habitat that extends along the river. This site's close proximity to Estrella River also has potential for impacting unknown cultural and tribal resources. Because this alternative would, on balance, result in greater environmental impacts than the proposed substation site, it was rejected.

The Mill Road West site would have greater air quality, biological resources, hydrology and water quality, transportation and traffic, and utilities and service systems impacts compared to the proposed substation site and would require extensive roadway improvements for constructing and operating the project. As a result, the Mill Road West site was rejected.

4.4 POWER LINE ROUTE SELECTION AND EVALUATION

Once NEET West notified PG&E of its proposed substation site, PG&E began evaluating the routing options for a new 70 kV power line to connect the proposed substation to the existing San Miguel-Paso Robles 70 kV power line. PG&E conducted an evaluation of potential routes based on the CAISO Functional Specifications. The proposed route and the Estrella and Creston route alternatives were ultimately selected based on the results of routing evaluations, stakeholder involvement, preliminary engineering, and environmental resource studies. PG&E identified the following goals to help guide the routing process and evaluation criteria:

- Construct a safe and reliable system;
- Minimize conflicts with established land uses, including agriculture;
- Minimize the length of the electric power line to reduce the costs and overall footprint;
- Minimize potential impacts on special-status species and habitats;
- Minimize permitting requirements and potential schedule delays for an in-service date of 2019;
- Minimize constructability and operational constraints;
- Minimize costs to customers;
- Minimize the division of parcels by locating routes near the edge of parcels; and,
- Maximize the use of existing corridors by co-location when feasible.

The routing process was separated into the following four distinct stages: study area development, corridor development, route segment development, and final route identification.

These stages allowed the team to establish a large 54.8-square-mile study area that would then be narrowed into 42 corridors and 125 route segments that could be evaluated and connected together to build a complete route.

Segments were assigned compatibility ratings, and a spatial analysis was prepared to evaluate the potential for overhead power line structures to interfere with or obstruct navigable air space associated with the Paso Robles Municipal Airport. PG&E conducted desktop technical review and aerial field inspections using helicopters to determine constructability of the various route segments. Route corridors and segments were then further defined and narrowed during outreach activities that were initiated in July 2015, concurrently with the beginning of the routing process. A public announcement, including a website, media advertising, and direct mail, was sent out in November 2015.

The corridor map and three preliminary route options were made public in conjunction with public meetings in December 2015, January 2016, and June 2016. PG&E conducted over 30 briefings and presentations that reached a number of stakeholders, including local elected officials, city and county staff, landowners, community members, local employees, agriculture and business groups, area tribes, and environmental organizations, among others. These activities were designed to provide an overview of the project and to solicit feedback on the proposed routes and segments.

As a result of this review process, PG&E narrowed the previous 42 corridors and 125 route segments, down to the proposed three alternative routes presented below. PG&E also completed engineering, biological, cultural, and paleontological studies for these alternatives.

4.4.1 Summary of Power Line Route Alternatives Comparison

All power line routes (proposed route and two alternative routes) would meet the project objectives. Construction of all routes would result in similar effects to cultural resources, hazards and hazardous materials, recreation, population and housing, and public services. However, potential impacts to aesthetics, air quality, biological resources, geology and soils, noise, transportation and traffic, and utilities and service systems were found to vary among routes. A comparison of the alternative routes, and the advantages and disadvantages of each, is included below.

4.4.1.1 Proposed Route

The proposed route would require construction and operation of approximately 7 miles of new double-circuit 70 kV power line (new 70 kV power line segment) and approximately 3 miles of reconductoring of an existing 70 kV power line (reconductoring segment) in the city of Paso Robles and San Luis Obispo County. The proposed route allows for the new line to pass south of the Paso Robles Municipal Airport in a low-density area. The new conductors would be supported by a combination of the same types of structures and conductor configuration as for the alternative routes. Construction methods and operation and maintenance activities would also be similar to those used for the other routes. Temporary and permanent disturbance area assumptions for the proposed route are the same as identified for the other route alternatives.

Approximately 0.5 mile of the proposed route is within an existing 500 kV and 230 kV transmission corridor. Land uses surrounding the proposed route primarily consist of urban and rural residential developments and agricultural areas dominated by vineyards. The proposed route is located on privately-owned parcels, which allows for easier maintenance of the power line as compared to lines located in franchise areas.

The proposed route is about 7 miles shorter than the Estrella route (which requires 4 more miles of new pole line and 3 additional miles of reconductor), thereby amounting to less overall temporary and permanent disturbance. The shorter project length of the proposed route also reduces impacts to the agricultural operations located throughout the area, since the Estrella route is located predominately in areas of extensive agricultural activity.

Compared to the alternative routes, the proposed route also has fewer visual impacts to residents, since much of the route is located in either sparsely populated rural areas or in areas already supporting transmission line facilities.

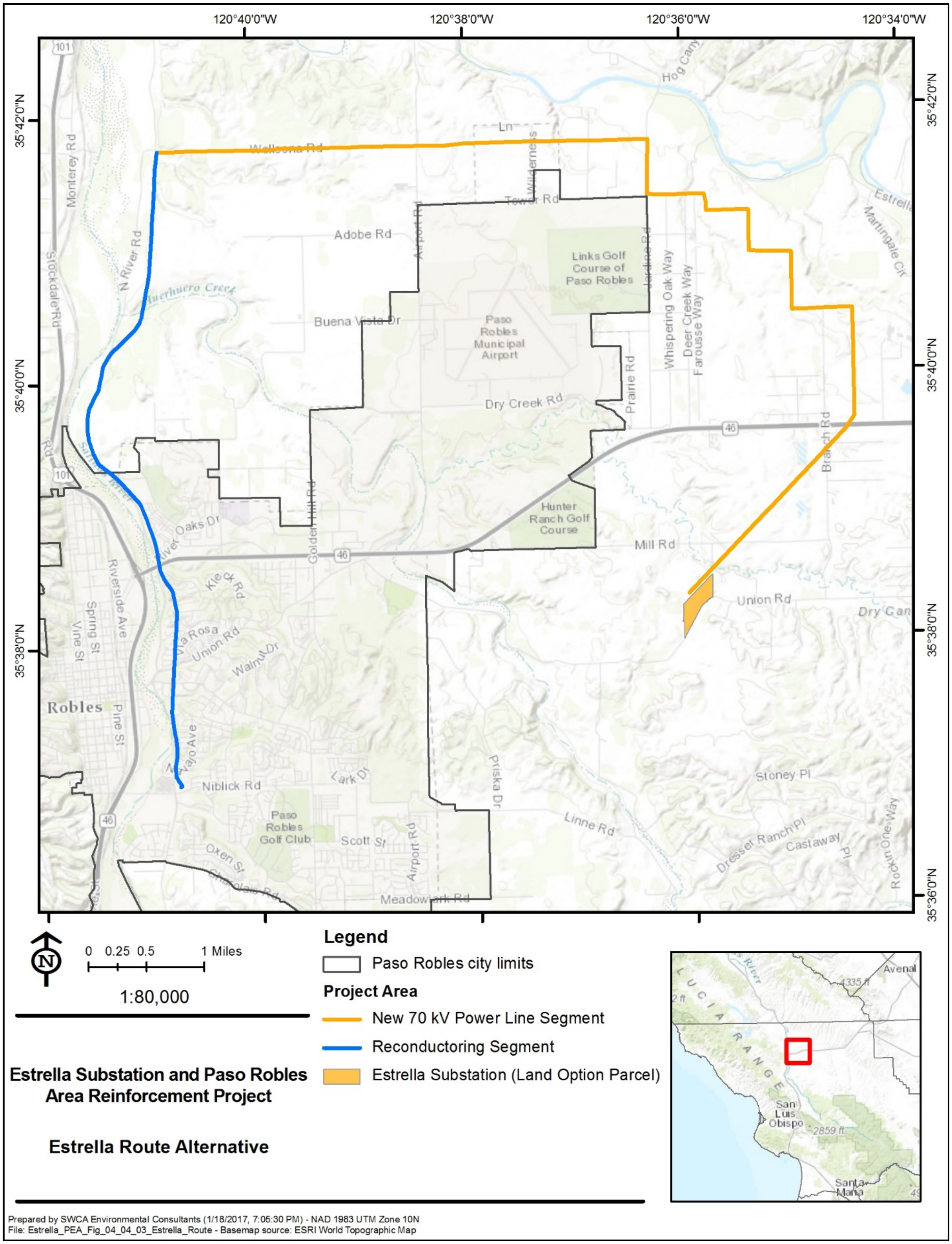
4.4.1.2 Estrella Route

The Estrella route would require construction and operation of approximately 11 miles of new double-circuit 70 kV power line (new 70 kV power line segment) and approximately 6 miles of reconductoring of an existing 70 kV power line (reconductoring segment) in Paso Robles and San Luis Obispo County (see Figure 4-3, Estrella Route Alternative). The proposed route allows for the new line to pass north of the Paso Robles Municipal Airport in a low-density area. Approximately 2 miles of the Estrella route's new 70 kV power line segment is within an existing 500 kV and 230 kV transmission corridor. Land uses surrounding the Estrella route primarily consist of urban and rural residential developments and agricultural areas dominated by vineyards.

Conductors on the new 70 kV power line segment and the reconductoring segment would be supported by a combination of the same types of structures and conductor configuration as the proposed route. Construction methods and operation and maintenance activities would be identical to the proposed route. Impacts to sensitive natural communities (i.e., blue oak woodlands, sandy wash, Central Coast cottonwood-sycamore riparian forest, and coastal and valley freshwater marsh) would be fewer than along the proposed route.

However, proximity to the Paso Robles Municipal Airport would reduce the ability to follow property lines, causing a number of properties to be severed by the new utility route. Some of these properties would also afford PG&E limited access to the power line for maintenance. Although temporary and permanent disturbance area assumptions are the same as identified for the proposed route, the Estrella route is about 7 miles longer (4 miles of new pole line and 3 additional miles of reconductor) than the proposed route, thereby increasing the overall acreage of temporary and permanent disturbance.

Figure 4-3. Estrella Route Alternative



Impacts to air quality, geology and soils, and transportation and traffic would increase compared to the proposed route because of the longer route. In addition to increasing ground disturbance, the schedule for construction would be incrementally longer to construct the Estrella route as compared to the proposed route. A longer construction schedule would result in additional off-road construction equipment usage and on-road truck trips, which would result in a slight increase in air and greenhouse gas emissions and truck trips in the project area. Higher project costs from the longer line length would be an additional burden on utility ratepayers.

It is estimated that the construction duration could be up to 1 to 2 months longer than for the proposed power line route due to the 7-mile-longer power line route. Agricultural impacts would be increased because the power line route would extend almost entirely through agricultural lands, resulting in more disruption to active agricultural operations.

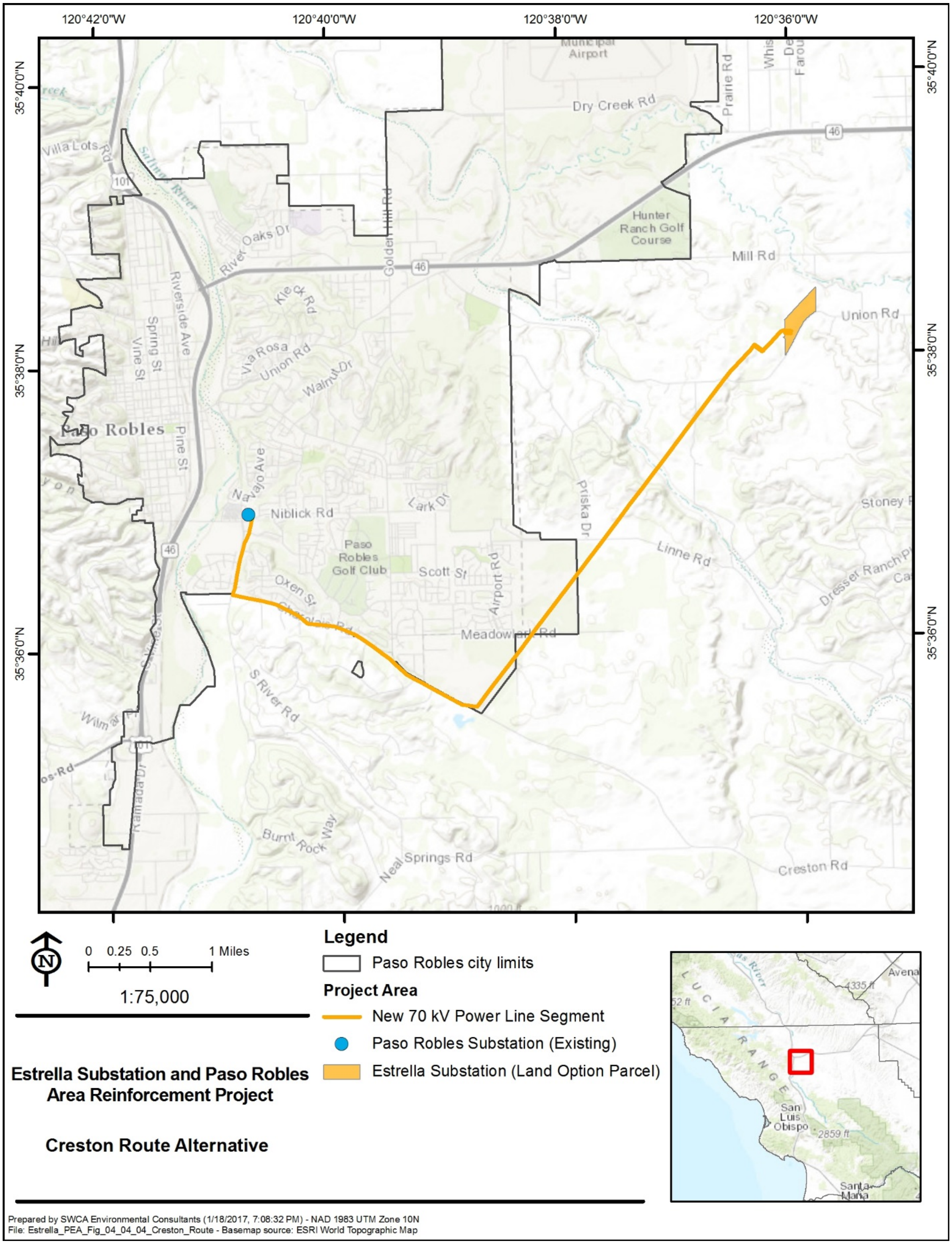
4.4.1.3 Creston Route

The Creston route would require construction and operation of approximately 7 miles of new double-circuit 70 kV power line in Paso Robles and San Luis Obispo County (see Figure 4-4, Creston Route Alternative). Approximately 4 miles of the Creston 70 kV power line would be within an existing 500 kV and 230 kV transmission corridor. Land use within this portion of the Creston route is primarily agricultural and rural residential. Beyond the transmission corridor, the land use along the route varies from rural residential to dense urban development. This alternative is located on a combination of privately-owned property and PG&E easements, with one parcel owned by the Land Conservancy of San Luis Obispo County.

Conductors along the Creston route would be supported by a combination of the same types of structures and conductor configuration as for the proposed route's new 70 kV power line segment. Construction methods and operation and maintenance activities would be nearly identical to the proposed route for most of the new 70 kV power line segment. Temporary and permanent disturbance area assumptions are the same as identified for the proposed route's new 70 kV power line segment along the transmission corridor and along the south side of Creston Road to the south side of Charolais Road. Along Charolais Road and South River Road, there is dense urban development and a number of large heritage oaks that would require removal. These heritage oaks are part of the historic blue oak forest and are highly regarded by the community. Although the mileage of this route is similar to the proposed new power line segment (approximately 7 miles), the overall acreage of disturbance would likely be less because this alternative does not require reconductoring of the existing 70 kV power line.

Along Charolais Road and South River Road to Paso Robles Substation, the Creston route would be located adjacent to residential front and backyards and a proposed Senior Center along South River Road. Since the Creston route is an entirely new power line, the visual contrast compared to existing conditions would be high for the homeowners along this portion of the route, and the new poles and conductor would present a permanent adverse visual change to the area.

Figure 4-4. Creston Route Alternative



The Creston route is approximately 3 miles shorter than the proposed route, and therefore would likely involve less ground disturbance and overall vegetation removal (both temporary and permanent). However, the Creston route contains a heavy concentration of heritage oak trees along Charolais Road and South River Road. This route would require the removal and trimming of heritage oaks, whereas the proposed route would only require trimming of heritage oaks. The Creston route could also result in direct or indirect impacts to vernal pool fairy shrimp and/or vernal pool fairy shrimp habitat, whereas the proposed route is designed to avoid such habitat. In addition, the Creston route has potential engineering feasibility conflicts with existing utilities.

4.4.1.4 Conclusion on Power Line Route Selection

The proposed route is about 7 miles shorter than the Estrella route and allows for the new line to pass south of the Paso Robles Municipal Airport in a low-density area. Due to the shorter route, it would create less ground disturbance and fewer impacts to agricultural operations. Compared to the alternative routes, the proposed route also has fewer visual impacts to residents since much of the route is located in either sparsely populated rural areas or in areas already supporting transmission line facilities.

The Estrella route was rejected because large parcels would need to be severed, access for maintenance would be limited, and overall it would result in greater environmental impacts.

Although the Creston route is shorter than the proposed route, it has greater visual and biological impacts than the proposed route, as well as potential engineering feasibility conflicts with existing utilities. Large heritage oaks would need to be removed, and the project extends through pockets of dense urban development. For these reasons, the Creston route was not selected.

4.5 REFERENCES

California Independent System Operator Corporation (CAISO). 2014a. *2013–2014 CAISO Transmission Planning Process, Estrella Substation Project Description and Functional Specifications for Competitive Solicitation*. June 26, 2014. Online: www.pge.com/includes/docs/pdfs/safety/pasorobles/PasoRobles_CAISO_ProjectDescription.pdf. Accessed November 5, 2016.

____. 2014b. *Estrella Substation Project, Transmission Competitive Solicitation Questions Log – Question/Answer Matrix*. May 6, 2014. Online: http://www.caiso.com/Documents/2013-2014TransmissionPlanningProcessCompetitiveSolicitationProjectSponsorQuestionAnswerMatrix.htm. Accessed November 5, 2016.

____. 2015. *Estrella Substation Project, Project Sponsor Selection Report*. March 11, 2015. Online: www.caiso.com/Documents/ProjectSponsorSelectionEstrellaFinalReport.pdf. Accessed November 5, 2016.